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Diachrony and lexical semantic change of snake-related roots in East Cushitic and Omotic

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Obtaining the necessary literature has not always been easy. Fortunately, during my stay in Addis Ababa, I was able to acquire various books and journals published by the Academy of Ethiopian Languages and Cultures, with the very kind help of Dr. Mulugeta Seyoum and Dr. Yohannes Adigeh, and their colleagues. These works are now in the possession of the African Studies Library in Leiden, kindly facilitated by Dr. Gerard van de Bruinhorst. Other crucial materials were shared with me by Prof. Maarten Mous, Dr. Christian Rapold, Dr. Bonny Sands, Nina van der Vlugt, and Dr. Azeb Amha, for which I thank them deeply.

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Mas qaniinyo kulul iyo
Mid galaalan oo weyn
Ama labo af micidood
Ku mudmuda midkuu rabo
Ama goodka muudsata
Iyo jebiso malabsata
Abeesana la meel tahay
Midda lugaha mulaxliyo
Abriskiina maag wado
Goodaaddo ama mulac

Intaa miinka lagu xusay
Oon maansadeydaan
Magacooda ku mutuxay
Mid mariid leh ama mici
Iyo mid aan mir mudi karin
Ayey masasku kala noqon
Ee Yerun ku mahaddanid
Baaristaada meereed
In aan meeris kugu daray.

1. Introduction

This thesis presents an in-depth study of the diachronic semantic developments of snake-related words in the greater Horn of Africa, with a primary focus on East Cushitic and Omotic languages. The reasons for pursuing this topic are manifold. Firstly, there is a great scarcity and neglect of the study of lexical semantic change in historical linguistic work. This seems to be a problem throughout linguistics, but is especially apparent in an under-researched area like the Horn of Africa. Much of the historical linguistic work in this region has relied on superficial comparison and lexicostatistic methods which do not account for diachronic semantic change, and can lead to incomplete or skewed reconstructions—problems which I discuss in this thesis. Synchronic semantic variation is also little accounted for, as sketchy descriptions and wordlists fail to uncover the semantic breadth contained in the lexicon and in language use. I therefore felt it necessary to not rely on single attestations of a word, as is mostly done in comparative research, but to compare all available sources on a language in order to bring into the equation semantic and phonological variation, which are often key to understanding diachronic change. This was in some cases complemented with primary data collection and interviews, specifically for Hamar, Tsamay, Wolaytta, Gamo, Arbore, and Somali. To ensure a robust comparative analysis, it was also necessary to study the terms in an areal perspective. Lexical borrowing has been commonplace throughout history, and still is, and is in many cases accompanied by semantic change. On the structural semantic level, Hayward (1991: 143) had already suggested that "lexicalization patterns are shared to a very high degree throughout the Ethiopian region". But, he noted, "for the great majority of Ethiopian languages, there are no dictionaries, and although there are a number of word-lists in existence, these seldom contain anywhere near the depth of information required for the exercise". I must therefore stress that such detailed lexicological undertaking has only become possible in recent years, as the documentary and descriptive record on languages of the Horn of Africa has been continually expanding, especially in the last decade.[1] However, the lexical reconstruction of East Cushitic and, especially, Omotic still remains in its infancy. But as Wilkins (1996: 267) notes:

> "[…] we no longer need to wait until more advanced stages of reconstruction before considering issues of semantics. Instead, it is currently possible to utilise, and build upon, traditional knowledge and insights, and thereby to identify universal patterns of semantic association and change which can be used in the earliest stages of comparative research to help search for tentative cognates."
> —Wilkins (1996: 267)

Still, many qualitative and quantitative shortcomings of the available data remain, and it is hoped that the coming years will continue to generate plentiful descriptions to plug such gaps in our knowledge.

The primary focus on East Cushitic and Omotic languages stems mainly from a personal research interest in these languages, the history of their lexicon and the degrees of contact between them. It appears hardly possible to study the history of one of these families without studying the other.

[1] Invaluable works that I must mention here are the various dictionaries published by the Academy of Ethiopian Languages and Cultures at Addis Ababa University, as well as the ongoing lexicographic work Orma by Hoskins (2025), Jiiddu by Salim et al. (2024), Dhaasanac by Ness (2023), and Tosco's (2022) dictionary of Gawwada, Tsehay et al.'s (2016) work on Boro, and the numerous MA and doctoral theses completed by students at Addis Ababa University.

Narrowing down on the domain of snake vocabulary allowed me to research a large number of languages in greater depth. The choice to study snake-related vocabulary resulted from my observation or "hunch" that lexical innovation and diachronic semantic change is especially prevalent in this domain, which compellingly turned out to be the case. Exceptional lexical diversity is observed in some cases, notably in the Omo-Tana branch of East Cushitic, a fairly well-established genealogical subunit. The maps below illustrate this diversity in contrast to the striking lack of diversity in the word for 'bird'. The contrast is especially interesting given that the Word Loanword Database (which had only a single sample from the Horn of Africa) assigns roughly equal scores to 'snake' and 'bird' in terms of borrowability, age, and simplicity (Haspelmath & Tadmor 2009: #3.581, #3.85).[2]

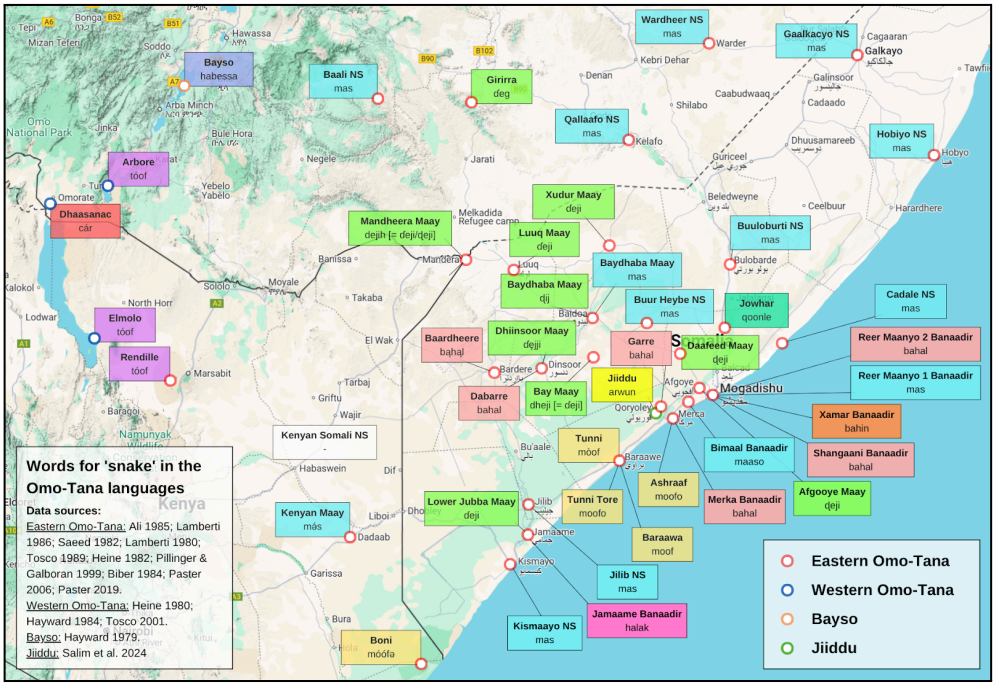


Figure 1. Map showing lexical diversity in the generic word for 'snake' in the Omo-Tana languages

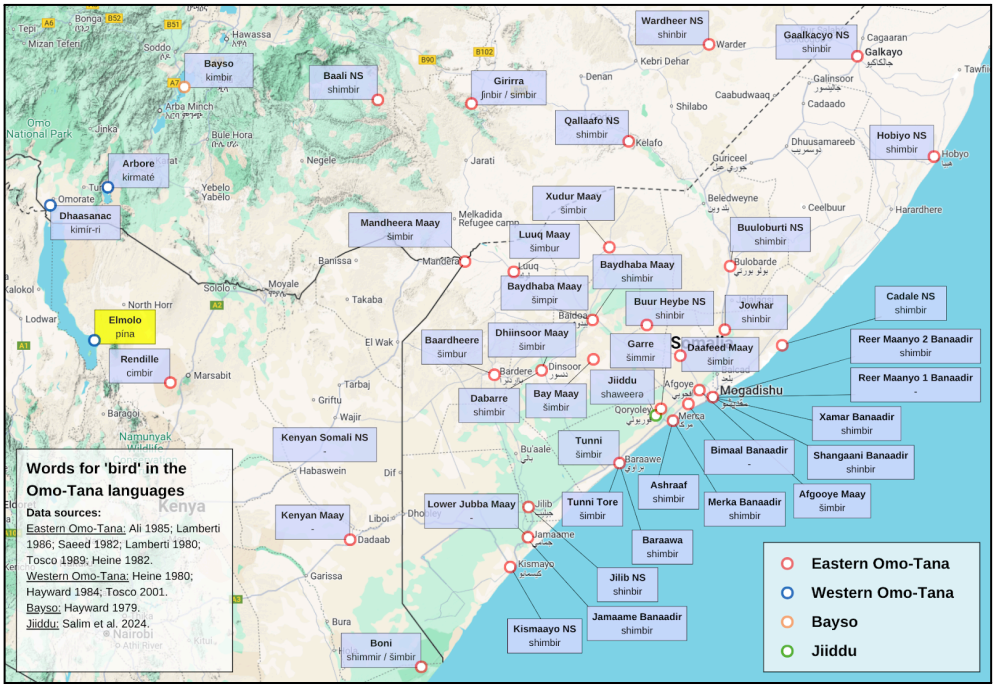


Figure 2. Map showing lexical diversity in the generic word for 'bird' in the Omo-Tana languages

[2] Available online at: https://wold.clld.org/meaning/3-85, https://wold.clld.org/meaning/3-581.

Given this lexical diversity, one of the main goals of this thesis is to understand how this diversity came about. This is done by carefully reconstructing forms and meanings node by node, fleshing out innovations, retentions, and interference from horizontal transfer.

It is striking that the diversity of lexical roots for 'snake' attested in this low-level branch of East Cushitic is far greater than in the entirety of Bantu, where we find the root ***jókà** 'snake; intestinal worm' in each of the 16 Guthrie Zones and thereby in most Bantu languages without significant exception (Bastin et al. 2002).

Comparing other branches of East Cushitic only adds to the diversity of roots. Central EC (formerly "Oromoid"), Yaaku, Dullay, Saho-Afar, and Highland EC, are all divergent in their generic word for 'snake'. Cognates to the Eastern Omo-Tana words meaning 'snake' can be found in other branches, but sometimes in unexpected places, hiding behind other meanings. For instance, we find a cognate to the Dhaasanac word **cár** 'snake' in the Arbore word **čáar** 'leopard', and Somali **mas** 'snake' finds a cognate in Dhaasanac **mas** 'rope' (see §2.1.3), and it is further hypothesised that Proto Eastern Omo-Tana ***mas-** 'snake' derives from a Proto East-Cushitic root ***mas-** 'fear, dread'. Also in the Omotic languages such semantic change is observed. In section §3.3, I postulate an Omotic root ***zab-** 'rope' from which, through (a series of) independent natural semantic changes, meanings developed such as Yemsa **zāwā** 'snake', Koorete **záwa** 'house', Sheko **záábá** 'line', and Hamar **zabí** 'stiffness'.

The reasons for such semantic change are deeply cultural, informed by the way in which speakers conceptualise, categorise, describe, talk about, and —most importantly— avoid talking about snakes. Indeed, taboo avoidance strategies can explain some of the patterns observed in the data, in particular the widely observed and recurrent semantic change from 'wild animal' to 'snake'. The taboo on mentioning snakes is discussed in section §1.5.

1.1 Research questions

The present study aims to answers the following research questions:

1. Which snake-related roots can be reconstructed for East-Cushitic and Omotic?
2. What semantic shifts, both to and from words for snakes, can be traced throughout the history of these language families?
3. To what extent are snake-related words borrowed, what semantic changes occur in the process of borrowing, and what can this tell us about historical contact between languages?
4. What are the cultural and conceptual mechanisms behind the lexical semantic change in words for snakes?
5. Are these mechanisms still at play at a synchronic level (e.g. in taboo avoidance), and what explanations can they offer for deeper historical developments?

It must be made clear that in the discussion of "snake-related" roots I mainly restrict myself to generic words for 'snake' and 'python', venturing into less basic vocabulary such as 'viper, puff-adder' and 'cobra' only where it is felt necessary to highlight certain diachronic issues or to compare parallel developments.

1.2 Organization of the thesis

In the next sections I briefly set out the theoretical framework (§1.3) and the methodology (§1.4). In section §1.5, I discuss the cultural role of snakes in the Horn of Africa, and in section §1.5, taboo avoidance and conceptualisation.

The bulk of this thesis comprises two parts in which I analyse in detail the snake-related lexicon—the first on East Cushitic and the second on Omotic. The organisation of the constituent parts is not fully consistent, as I have opted for a structure that I deemed more practical. The part on East Cushitic starts off with a discussion of words for 'snake' in the Omo-Tana languages, since these form a coherent genealogical grouping within which semantic and lexical innovations can be reliably traced. The other sections take a root for 'snake' or 'python' as a starting point and explore their diachrony by drawing on data from related and unrelated languages.

Much attention is given to issues of historical phonology, as this is necessary in order to justify cognacy and semantic developments.

The data are presented with an emphasis on clarity regarding the provenance of each item. Related items are organised into tables where the source is explicitly indicated for each entry. The languages are grouped according to their genealogical subclassification in order to remain comprehensible to readers less familiar with these language families. Abbreviations are avoided. Original transcriptions as found in the source material are retained, with additional clarification where necessary. Page numbers are indicated as much as possible so that the reader can easily trace each item.

Reconstructed items are indicated with an asterisk *. In other cases, I refrain from giving a reconstruction and instead list an item as representing a set of cognates, using #.

1.3 Mechanisms of diachronic lexical change

In the diachronic development of a language, a language's lexical roots may be lost, replaced, or shift in meaning, and new roots may be created. The following overview presents the various mechanisms behind these changes. Principles of natural semantic change as outlined in Wilkins (1996).

Loss of a word without replacement

A word is lost along with the concept it denotes. For example, a word meaning 'cobra' is entirely lost when speakers move from the lowland into a highland ecology where cobras are not found.

Loss of a word by internal derivative replacement

A word is replaced by a newly formed internal derivation. For example, the Bench word **tsʾōtʾńbàb** 'snake' replaces ***ɛoɛ** 'snake', being formed from on basis of **tsʾót'** 'wild animal' plus the element **bàb** 'father; owner' (§3.8). The original word for 'snake' becomes obsolete and is subsequently lost. The new construction may either lexicalise and become opaque or remain transparent and productive.

Loss of a word by internal semantic shift

A word is fully replaced by another word which exists within the language as a result of a semantic shift. For example, the Proto Eastern Omo-Tana root ***bahal-** 'wild animal' shifted meaning into Garre **bahal** 'snake' whereby the hypothesised original

word for ‘snake’ ***mas-*** is entirely lost (§2.1.4). The original meaning of ***bahal-*** ‘wild animal’ is lost (and is expressed by other means).

Internal shift without loss of a word
Similarly to the previous, a word is replaced by another as a result of shift in meaning, but the replaced word also shifts in meaning. For example, Proto Northern Highland East Cushitic ***warr-*** ‘python’ develops into ‘snake’ in Kambaata-Alaaba-Qabeena, and the original word ***hamas-*** ‘snake’ fully shifts its meaning to ‘intestinal worm’ (§2.6). In this case, the original root for ‘snake’ survives only in its hypothesised former secondary meaning of ‘intestinal worm’.

Loss of a root by replacive borrowing
A word is fully replaced by a word coming from another language. For example, the Proto Ometo root ***daw-*** ‘python’ was lost in Maale, replaced by the South Omotic root **qaar-** ‘python’ (§3.2.1). The meaning of the word in the donor language may not necessarily have to be matched.

Replacive borrowing and internal shift
A word is replaced by a word coming from another language, but the root survives in another meaning. For example, the meaning of ***bahal-*** ‘snake’ in Proto Garre-Boni was replaced by **móófə** ‘snake’ in Boni as a result of borrowing, causing the word **bààhál** to shift to ‘puff-adder’ (§2.1.5).

1.4 Methodology and methodological issues

1.4.1 The quantity and quality of data

As with any comparative linguistic endeavor, the scope of research is inherently limited by the availability of primary linguistic data. For both Omotic and East Cushitic, lexical documentation (as well as grammatical description) remains in its early stages. While comprehensive dictionaries exist for major languages such as Oromo, Somali, Amharic, and Sidaama, for many other languages, documented vocabularies rarely exceed 1.500 words. Moreover, the semantic coverage within these collections varies considerably. Being aware of the degrees of synchronic polysemy is crucial in understanding the diachronic outcomes of semantic change. In the case of more poorly documented languages, one is usually limited to the wordlists appended to grammars, where neither semantic accuracy nor depth are guaranteed. That is, if a word is documented at all, as too often grammars simply lack a wordlist. Even when lexical material is available, there is little consistency across sources as to what concepts are documented. Thus, one can hardly ever convincingly state that a language lacks a cognate to a root attested elsewhere, as it may simply be hiding in the undocumented bulk of the lexicon.

Fortunately, these problems can be largely alleviated by drawing data from a variety of sources. For example, while the Somali dictionary by Zorc & Osman (1993) captures more than 20.000 entries, one will only learn that the word **mas** ‘snake’ can also be used in the plural **masas** to refer to intestinal worms upon consulting the monolingual dictionary by Keenadiid (1976: 298).[3] Juxtaposing different sources can uncover a wealth of information useful to the historical linguist. An example is the case of Saho-Afar for which Reinisch

[3] And this is indeed confirmed by a Northern Somali-speaking informant, who adds that **mas** ‘snake’ can also be used in the singular in the sense of ‘intestinal worm’. But since such worms are generally out of sight and often come in a multitude, referring to them in the plural is more common.

(1890) reports **álā** 'wild animal; snake; tapeworm' with the plural forms **alūĺ** 'wild animals' and **ĺāl** 'snakes; tapeworms'. In a recent dictionary of Irob Saho by Tsegay & Mulugeta (2015), however, we find **alluula** 'wild animal' as a singular base form, and **alá** 'tapeworm' as a separate lexeme. Similarly, for Afar **alā** 'wild animal; snake' is reported in Reinisch (1887) with the plural **alūĺ**, while Parker & Hayward (1985) report **àla** 'wild animal' with another plural, **alluwwa**. What appears to match the plural as found in Reinisch's work is **allulle** in Parker & Hayward (1985) but reported in the meaning of 'hookworm parasite'. While such variation may reflect an ill-understood dialect situation, it gives crucial clues to the development of such terms throughout the language.

In other cases, I have found ethnographic works to contain more domain-specific lexical documentation than is found in dictionaries. An example is Oromo, for which numerous comprehensive dictionaries exist. Yet, when looking up the word for 'python', one will only find the common word **jawwee**. In the ethnographic description of the southern Ethiopian Oromo by Haberland (1963), we attest a greater variety of terms referring to pythons or other sorts of huge snakes, like **ḍudūfa** 'giant snake', **mūsagḗsa** 'python', **ṭára** 'large snake similar to the python'. These terms proved to be crucial in understanding the origin of snake-related lexicon in Highland East Cushitic languages, such as Gedeo (and Sidaama) **ḍ'udd'uufa** 'large-sized snake sp.', Sidaama **muusageessa** 'python', and Hadiyya **ṭ'araʔa** 'python' (discussed in §2.4.4-§2.4.6).

Hazel (2019: 55-56) comments on the discrepancies found in the description of Oromo snake vocabulary, revealing some plain mistakes in translation in the anthropological literature. But some of the discrepancies cannot be straightforwardly explained. He notes:

> "It may be that there was no standardised snake terminology across Oromoland. The meaning of a given term possibly shifted somewhat from group to group. Additionally, knowledge about the ophidian connections of moieties and ritual leaders was not equally shared by all Oromo tribespeople. All of this would explain why even ethnologists have ended up with divergent opinions."
> —Hazel (2019: 56)

He does however concede that the most reliable sources agree on the fact that **bofa** stands for 'snake' and **buutii** for 'viper'. Nevertheless, his remark remains compelling in light of cognatic correspondences in Konso **pofa** 'python', Burji **bofi** 'python', and Dhaasanac **bóf** 'rhinoceros viper'.

Another problem with the data is the vast inconsistencies found in transcription. Repeatedly, striking differences between sources on a single language are found with regard to transcription of vowel length, gemination, tone, and even the nature of consonants and vowels. Accurate phonemic transcriptions are crucial when conducting historical linguistic research. Errors in transcription make it hard to identify cognates and test hypotheses about regular sound correspondences. Consider for example the forms **dʒaarso** 'poisonous spider' and **dʒarso** 'viper-like snake' from Mekonnen's (2015: 337) grammar of Girirra. One wonders whether these may be the same word but variably transcribed due to an unawareness of potential polysemy. This indeed appears to be the case, as in the English-Girirra index we find 'viper-like snake' transcribed as **dʒaarso** (see section §2.1.5 for a discussion).

With these points in mind, I have aimed to compile as much data as possible from different sources in order to distinguish between inconsistencies in sources and genuine linguistic variation, and to avoid the pitfalls of misleading transcriptions, or the seeming absence of a cognate. Fortunately, the variation that emerges from juxtaposing diverse sources is often

critical for understanding the historical development of the roots being studied. Still, insurmountable disparities remain as not all languages are equally well documented. For Chara (Omotic; Ometo), only the words for 'snake' and 'python' are reported in the literature, while for Maale (Omotic; Ometo) we find no fewer than fifteen terms for snakes thanks to the work of Azeb (2001) and Alemayehu & Mulugeta (2018).

1.4.2 Clarification on ophidian terminology and lexicon

It is observed that languages in the Horn of Africa primarily lexify three common ophidian concepts: 'snake', 'python', and 'puff-adder ~ viper'. These terms appear to be the most salient and are most commonly attested in wordlists and dictionaries.

The glosses 'viper' and 'puff-adder' are often interchanged. 'Viper' is the broader term, and would include various species in the genus *Bitis*, although the puff-adder (*Bitis arietans*) is by far the most common. No lexical distinctions have been yet observed between different species of viper, making this difference in terminology not an issue. Viper species stand out in their characteristic behaviour of in- and deflating their body and making puffing and hissing sounds to fend off threats. Visually, puff-adders are characterised by their stout body of up to one meter, a triangular head, and V-shaped markings on their back. Unlike other snakes, puff-adders move forward slowly in a straight line. Puff-adders are nocturnal, highly venomous, and are responsible for most snakebites in Africa. They are mostly found at altitudes below 1900m. In lexicography, the puff-adder is not always identified. In Parker & Hayward (1985) we find Afar **abeesa** 'venomous type of snake', and in Zorc & Osman (1993) we find **abeeso** 'venomous snake sp.'. Both of these simply refer to the puff-adder. It is likely that the same is true for Dizi **bofi** 'venomous snake' (in Beachy 2005).

Pythons are large, non-venomous constricting snakes. Like puff-adders, but unlike most snakes, pythons are mostly active at night. Only one species of python is found: the African Rock Python (*Python sebae*). Yet, languages are found to have multiple words for 'python', like Sidaama **muusageessa** 'water python, big snake' and **ɗuɗɗuufa** 'python (bigger than **muussageessa**)' (in Gasparini 1983). It may be that pythons are distinguished by their size, as they range from 3 to 6 meters in length. In some lexicographic sources, we find them incorrectly defined. Vergari & Vergari (2003) gloss Saho **gaabbaa** as 'type of snake (? boa constrictor)' and in Hudson (1996) we find Beja **asallạ** also as 'boa-constrictor'. As a matter of fact, the boa-constrictor is only found in South America, although it shares with the python its constricting nature.

Cobras (*Naja*) are characterised by their hood and their upright pose when threatened. Dictionaries rarely document the word for cobra, if there is any at all, since their distribution is restricted to the southwestern lowlands. Here, we find for instance Dhaasnac **lúòbal** and Arbore **lóobal** 'cobra', both borrowed from Turkana (§2.2.3). The most commonly found species of cobra in southern Ethiopia is the black-necked spitting cobra (*Naja nigricollis*).



Figure 3. 1) Puff-adder (*Bitis arietans*); 2) African rock python (*Python sebae*); 3) Black-necked spitting cobra (*Naja nigricollis*).[4]

For the generic word for 'snake', it is assumed that a language will only have one basic word. When multiple words are reported as 'snake' without further specification, it is likely that one of them may constitute either an avoidance term (e.g. Afar **baɗot-ala** 'snake', lit. 'ground animal') or an underspecified meaning (e.g. Dabarre **ebeesə** 'snake' in Lamberti 1980 and Garre **abeesə** 'snake' in Tosco 1989, both likely meaning 'puff-adder', cf. Somali **abeeso**). In some cases, a general word for a large snake is attested, e.g. Orma Oromo **maagā** 'general word for a large full-grown snake' (Hoskins 2025) or Hadiyya **wollicho** 'large snake' (Ritter 2007). It is not clear whether it is a common pattern to have this meaning lexicalised.

Some lexical distinctions may perhaps be of a similar nature to that of English 'snake' vs 'serpent', which Mundkur (1983: 2) characterises as follows:

> "The distinction between the words "snake" and "serpent" is a dim one in popular parlance, but it involves more than a linguistic subtlety. The former is the native English word and far more commonly used; the latter is considered alien and sometimes reserved for venomous or larger species. A snake is merely the zoological entity, but "serpent", as we will see, opens up vast metaphorical possibilities."
> —Balaji Mundkur (1983: 2)

Such may be the case in Arsi Oromo, for which Haberland (1963) notes the following (translation mine):

> "The *ḍudûfa* is a giant snake, "the lord of the animals, which elephants and lions fear". The snake *mūsagéṣa*, which the other Galla call *ǧáwe* (python?), is not considered sacred and may be killed."
> —Haberland (1963: 306)

> "Snakes can also infest humans as spirits, especially the large one called *ṭára*, which is said to look similar to the python (*ǧawe*)."
> —Haberland (1963: 516)

More detailed accounts of the lexicon of snakes in Oromo have to my knowledge not been given since, and it remains to be investigated how these terms exactly relate to each other.

[4] Images were taken and adapted from Wikimedia Commons:
1) https://commons.wikimedia.org/wiki/File:Bitis_arietans_175369283.jpg;
2) https://commons.wikimedia.org/wiki/File:Python_sebae_female.jpg;
3) https://commons.wikimedia.org/wiki/File:Naja_nigricollis_115394795.jpg

1.4.3 Clarification on terminology in the domain of intestinal worms

As in this thesis it will be shown that the synchronic and diachronic semantic networks of words for 'snake' intersect with that of 'intestinal worms', I felt that it would be appropriate to clear up some of the terminology regarding such parasitic worms. In lexical documentation (dictionaries, glosses, etc.) various translations are used quite loosely and interchangeably even though there are important differences. The terms in question are the following:

> intestinal worms; ascarids; roundworms; threadworms; hookworms; tapeworm

The most broad term in this domain is 'intestinal worms', which can be a cover term for roundworms, hookworms, threadworms/pinworms, and tapeworms. Usually, though, tapeworms and hookworms are not specifically meant when this term is used, and it rather simply refers to roundworms. The biological cover term for all intestinal worms except tapeworms is "nematode".

The term 'ascarids' strictly refers to the taxonomical family of intestinal roundworms (*Ascarididae*), among which is the genus *Ascaris*. One of the species within this genus is *Ascaris lumbricoides* which is the largest and most common parasitic roundworm in humans. Infection results from ingestion of food or water contaminated with embryonated eggs. The resulting disease is called Ascariasis. These worms can be visibly found (moving) in the feces of affected individuals, as adult roundworms can range between 15 to 35 cm in length. For this reason, they are experienced as being snake-like, which is reflected in the monolingual definition of Oromo **maagaa** 'intestinal roundworm (ascaris)' (Ibsaa 2004: 42; translation mine):

> **maagaa**
> raammoo dhortu'u garaa keesaa bofa kan fakkaatu
> 'a parasitic worm in the stomach that looks like a snake'

Hookworms are worms that in their larval stage enter the body via the skin (usually the feet) and make their way via the bloodstream to the lungs where they are coughed up and swallowed after which they end up in the intestines where they multiply. They are usually not more than 10 mm in size, much smaller than roundworms, and cannot generally be seen in feces. Hookworms are not as common as roundworms (*Ascaris lumbricoides*) and it appears that commonly in lexical documentation the term 'hookworm' should rather be understood as 'roundworm' unless this is overtly specified.

Threadworms or pinworms are another type of nematode. In an affected person's stool, they have a small thread-like appearance of up to 10 mm.

Tapeworms are long, flat, and appear in white-coloured segments that can be found in feces. The languages under study usually have a dedicated word for 'tapeworm' which is often colexified with or related to the medicinal plant used to treat the ailment, e.g.:

Amharic (Ethiosemitic) — Kane 1990

koso

1. tree sp. [...] which bears a flower used to make an anthelmintic medicine
2. anthelmintic medicine
3. tapeworm

Sidaama (Highland East Cushitic)	
soʾicco	Gasparini 1983
1. plant from the fruits of which a laxative purgative medicine is obtained;	
2. laxative purgative medicine;	
3. tapeworm	
Hadiyya (Highland East Cushitic)	
suuxiincho ‘tapeworm’	Ritter 2007
suuxo ‘bitter leaves’[5]	
Haro (Omotic; East Ometo)	
millisʾo ‘tapeworm’	Tsegay et al. 2018
millo ‘leaf used for animal medicine’	

Table 1. Lexifications of ‘tapeworm’ and ‘anthelmintic medicine’.

Across different sources, incongruency is observed in the translations or glosses given to such terms. Consider the case of Kambaata, Alaaba and Qabeena, three mutually intelligible Highland East Cushitic languages. When looking for the root **hamas-**, one will find the following:

Kambaata **hamasú** ‘tapeworm’	Treis 2008
Alaaba **hamashú** ‘hookworm’	Schneider-Blum 2007
Qabeena **hamäʃu** ‘intestinal worm’	Haregewoin & Alemayehu 2015

Table 2. Variation in meaning glosses of ‘intestinal worm’

One has to doubt whether these glosses are fully accurate. Given our knowledge that these words have developed from an earlier meaning of ‘snake’ (cf. Hadiyya **hamashsh-** ‘snake’), one expects based on areal typological patterns that these words would have come to refer to intestinal roundworms, i.e. *Ascaris lumbricoides*, given their salient snake-like appearance. Indeed, the Kambaata dictionary by Alamu (2009) confirms this idea, as we here find the item as **hamasu** ‘ascaris; thread worm’. The word for ‘tapeworm’ is instead listed as **dubukka**, or **dibina** for ‘tapeworm (a detached piece)’. Thus, I instead take the above set of words to have one and the same meaning, namely ‘intestinal roundworm’ which taken more broadly could also extend to denote any kind of intestinal worm, like the less salient hookworms and threadworms. As a general category, it may also perhaps include ‘tapeworm’, but it is highly unlikely that this is the prototypical referent. The Kambaata gloss ‘tapeworm’ as found in Treis (2008: 164) is thus probably much too narrow of a translation. Words for ‘tapeworm’ are, in the current study, not observed to develop from words meaning ‘snake’, likely due to their appearance not being very snake-like. Moreover, languages usually have specific lexicon to distinguish tapeworms from other intestinal worms, and words for ‘tapeworm’ do not tend to synchronically or diachronically intersect with words denoting ‘roundworms’, although again, they may feature together as members of a more general set.

[5] Compare the same lexeme in Tadesse (2015: 344) **suutʾo**, translated as ‘tree growing on the highland areas’. The word is also found in Amharic as **suṭ** ~ **šuṭ** ‘tapeworm’, as well as Harari and Gurage (see Leslau 1979: 566-567).

1.5 Snake taboos and conceptualisations of snakes

1.5.1 Snake taboos & avoidance speech

Taboos on mentioning snakes appear to be widespread, yet barely documented in the Horn of Africa. Such taboos seem to exist throughout Africa and perhaps much of the world, as we also find a multitude of snake euphemisms in Lithuanian, "numbering in the hundreds" (Smetona 2017). Issah et al. (2023: 51-52) report that among speakers of the Mabia languages of Ghana, overt mention of snakes or snakebite is a verbal taboo and thus these topics must be referred to using euphemistic expressions. They note that euphemisms are used as keys to code what is to be said in attempts not to threaten the positive face of the interlocutors. Indeed, for Northern Somali too, it is said that **mas** 'snake' should not be mentioned, as it is believed to bring about misfortune (Jama Musse Jama, p.c.).

The most common taboo against the direct mention of snakes is observed during nighttime. This seems to be true for Arbore, Tsamay, Hamar, and Somali, from what I have been able to gather first-hand, and probably for many more linguacultures across the Horn and elsewhere in Africa. Interestingly, I found no snake taboos of any kind to exist in Gamo, an Omotic-speaking agricultural society of the southern Ethiopian highlands (see §4.2.2). For Fulfulɗe Jugureere spoken in Togo, the word **boddi** 'snake' is replaced at night by **ɓoggol leydi** 'rope of the ground' (Djibrila Tetereou, p.c.). Similarly, in Basaá, spoken in Cameroon, **ɲɔ́ɔ́** 'snake' is replaced by **ŋkoó** 'rope' at night (Paul Roger Bassong, p.c.). Note that the puff-adder, one of Africa's most dangerous snakes, is active at night.

In the Horn of Africa, euphemistic expressions have been described for the Borana Oromo by Leus & Salvadori (2006), who note:

> "Out of respect people often use certain **seeda** euphemisms when talking about [snakes]. They often refer to snakes not as **bofa** but **jiillicha** or **huriisa** (both meaning 'straight', the former also an alternate name for the Gona) or **harchumee** (the long thin flexible herding stick). When asking if a snake has gone away, the verb for 'to go out to graze' **boba'a** is used."
> —Leus & Salvadori (2006: 71)

Yet, for other linguacultures of the Horn of Africa, I have not yet seen this mentioned. However, I was able to gather first-hand data on taboo avoidance in southern Ethiopia. For Arbore (East Cushitic; Omo-Tana), I was told that snakes are greatly feared at night and that **tóof** 'snake' is replaced with **simɓác** 'bark rope'.[6] For Tsamay (East Cushitic; Dullay), the word **dawwó** 'snake' is replaced by **aako biyatte** 'animal on the ground'. Hamar likewise employs the expression **pee dabí** 'ground animal' or simply **dabí** 'wild animal' as a euphemism for **guní** 'snake'. In the Somali variety of Somaliland, we find **bahal hoose** 'lower animal' to avoid the word **mas** 'snake' (Jama Musse Jama, p.c.).

Mentioning snakes may also be avoided for other reasons, such as in Kambaata women's avoidance of in-law name taboos (**ballishsha**), where the word **worrichchú** 'snake' is replaced by **leegicchú** 'beautifully decorated stick' (Treis 2005: 304). The outcomes of such replacement strategies do seem to operate by the same conceptual semantic principles as direct avoidance.

In some languages, we find various generic terms for 'snake' in dictionaries or wordlists without it being clear what the semantic difference is. For instance, in Orma Oromo we find beside **bofā** 'snake' also the word **k'unç'e lafa** 'snake' (Hoskins 2025), which upon closer

[6] Note that 'rope made of plant fiber' and 'rope made of tree bark' are two clearly distinct concepts in languages of southern Ethiopia. It is not known to me why

inspection turns out to be a compound meaning 'plant fiber of the ground'. Similarly, in Beachy (2005) on Dizi (Omotic; Maji) we come across both **t͡ʃuɑʒu** 'snake' and **sukunud** 'snake'. In section §3.7, I show that the latter is best analysed as a compound of **suku~tsuku** 'bark rope' and **nudu** 'animal'. It is most likely that such terms exist as or originated as avoidance terms. In Afar (East Cushitic; Saho-Afar), we most commonly find the word **baɖot-ala** for 'snake' in grammars (Bliese 1974) and basic word lists (Bender 1971). The word is a compound which literally means 'ground animal'. Yet, in Parker & Hayward (1985) we see that a monomorphemic root also exists: **warru** 'snake'. While no mention is made of a taboo, we can assume that **baɖot-ala** is an avoidance term, and wonder whether the avoidance term is perhaps more frequent or salient than the term it replaces. Such was noted by an informant from Banne (Omotic; South) who said that the expression **pee dabí** 'ground animal' is far more common than **guní** 'snake', even during the day. He added that especially elders prefer to use the euphemistic expression. Of course, such individual accounts need further follow-up. In fact, in Ge'ez we find no monomorphemic lexeme for the generic word for 'snake' at all and the only way of talking about it is by the compound **arwe mədr** 'ground animal' (Leslau 1987: 40).

Various informants from southern Ethiopia noted that the mention of the python knows no such taboos. This is because the python, being non-venomous, is not considered to be a harmful snake.

Issah et al. (2023) reported that the taboos on snakes in the Mabia languages of Ghana also applied to snakebites. To what extent this is the case in the Horn of Africa is unknown to me. At least for Hamar, I was told by an informant, the euphemism can apply to the verb as well. Instead of saying **guní kíɗan ki ga'áde** 'the snake bit him', one should rather say **pee dabí kíɗan ki paxáde** 'the ground animal struck him'. This applies not only at night, but during the day too, as mentioning it would actively call upon such misfortune. In Oromo, too, euphemisms pass into the verbal domain. To enquire if a snake has gone away, one says: **Bofi sirraa boba'e?** 'Did the snake go to graze?' (Leus & Salvadori 2006: 71).

The effect of taboos on diachronic change in animal vocabulary has been well-described for Indo-European, where lexical innovation in the word for 'bear' can be traced in the history of Slavic and Germanic (Emeneau 1948). To my knowledge, no such suggestions have been made about diachronic lexical change in the Horn of Africa, but we can expect similar processes to be at play.[7]

In the conclusion of this thesis, I make note of a possible correlation between snake taboos, ecology, and the rate of diachronic lexical change (§4.2.2).

1.5.2 Conceptualisations of snakes

Euphemism and lexical change are grounded in the way speakers conceptualise and talk about snakes. While these conceptualisations are difficult to grasp for an outsider, there are certain proxies by which we can infer about them. In fact, precisely the outcomes of euphemism and lexical change are indicative of linguaculture's conceptualisation. An example is the fact that in Hamar (Omotic; South) (**pee**) **dabí** '(ground) animal' is the avoidance term for 'snake', and this matches the fact that snakes are indeed categorised as **dabí** 'wild animal' at the life-form level in Hamar folk-taxonomy. Such conceptualisations

[7] While Sasse (1976: 127) did speculate about taboo avoidance potentially playing a role in the irregular phonological development of words for snake in East Cushitic languages, I show in section §2.1.3 that his proposed correspondences were flawed and that there are alternative ways of explaining the set of lookalike forms.

can result in diachronic change. In Ge'ez (North Ethiopic), **arwe mədr**, literally 'ground animal', is the common word for 'snake'. In Tigre (North Ethiopic), a full semantic shift has taken place by which the word **arwe** has become the generic word for 'snake'. In the rest of Ethiosemitic, this root has preserved the original meaning of 'wild animal', e.g. Amharic **awre** and Tigrinya **arawit**. In Dhaace Gamo (Omotic; Ometo), however, the noun **dóʔa** 'wild animal' does not include 'snake', and as a consequence, snakes cannot be referred to as **dóʔa**.[8] Yet, in Chara, another Ometo language, the same root has yielded **doʔa** 'python' (section §3.4). Unfortunately, the folk taxonomies of the languages of the Horn of Africa remain vastly underexplored.

Other conceptual links can be gathered from proverbs, such as the following:

> **Saa guyya tikittī maagā dammakʼē, galgalā gaadi dammakʼā.**
> 'A milk cow frightened by a large snake while grazing will be frightened at home by his milking rope.'
> (Orma Oromo [East Cushitic]; Hoskins 2025)

Knowing about these conceptual links is crucial in understanding diachronic change, as in this case it may directly relate to the observed diachronic interchange between words for 'snake' and 'rope'. In section §2.1.1, reference is made to the Oromo avoidance term **huriisa** 'straightness' in order to explain the innovation of the word **tóof** in Omo-Tana. Understanding areal conceptual patterns is crucial in forming hypotheses about lexical change, as we observe that lexicalisation patterns and conceptual structures are to a large extent shared across the area (Hayward 1991) and that certain diachronic changes keep recurring throughout history.

The cultural significance of snakes in East Africa is discussed in great detail in Hazel (2019a) and for southern Ethiopia in particular in Hazel (2019b), with a strong focus on the Oromo snake-cults.

[8] Note also that in this region there is a widespread lexicalisation pattern in which a crucial distinction is made in the basis lexicon between 'wild animal' and 'domestic animal', e.g. Hamar **dabí** vs. **qóle**, and Dhaace Gamo **dóʔa** vs. **méhe**, respectively.

2. East Cushitic

In the following scheme, I present a subclassification of East Cushitic, adapted from Tosco (2000; 2012; 2020) and Sosal (2025; forthcoming).

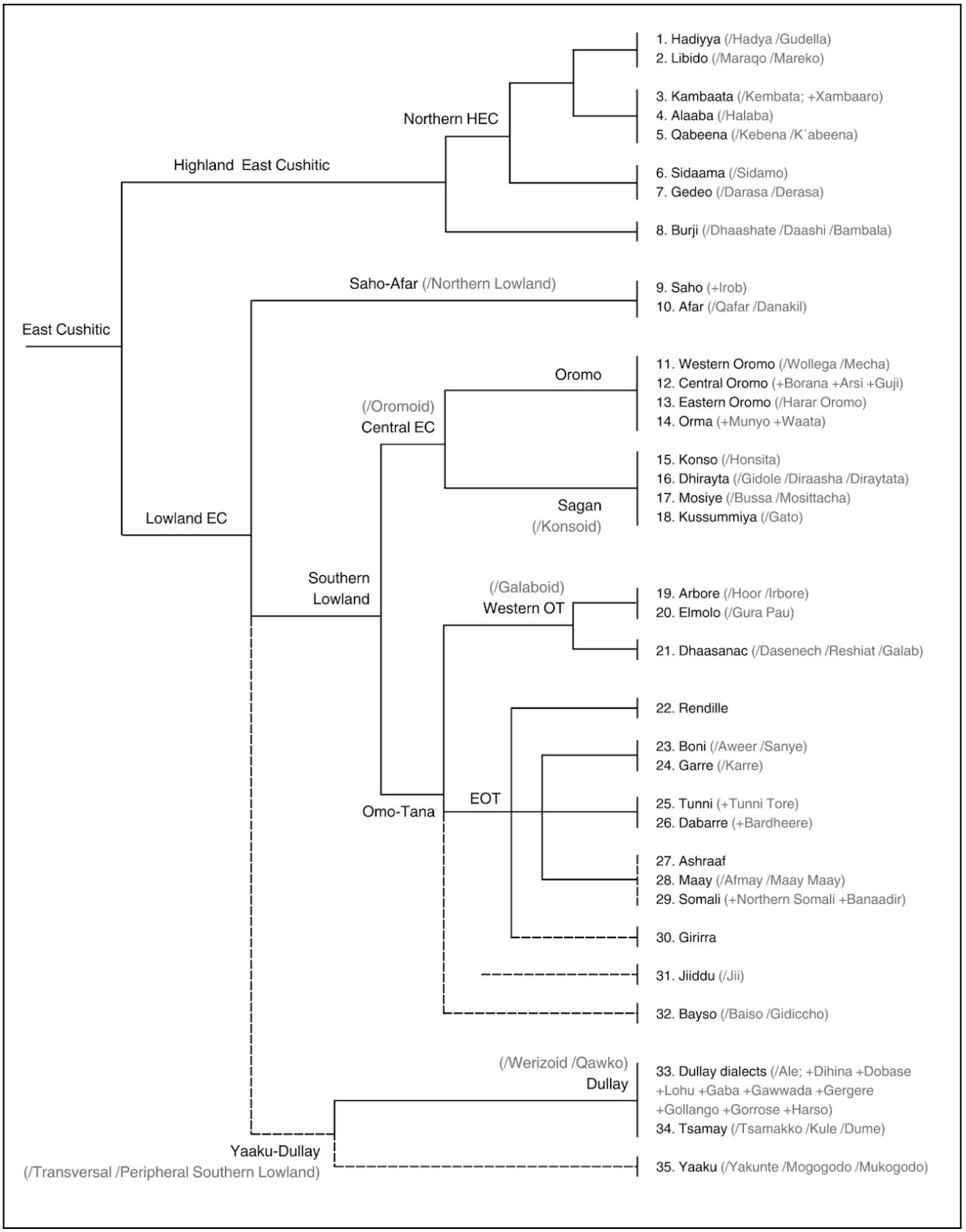


Figure 4. East Cushitic subclassification tree diagram

NB: Dotted lines indicate an uncertain position in the genealogy. Proximity on the vertical axis does not indicate closer genealogical relatedness. Outdated and alternative names for genealogical nodes and individual languages are shown after a /slash. Dialects are indicated by a + sign.

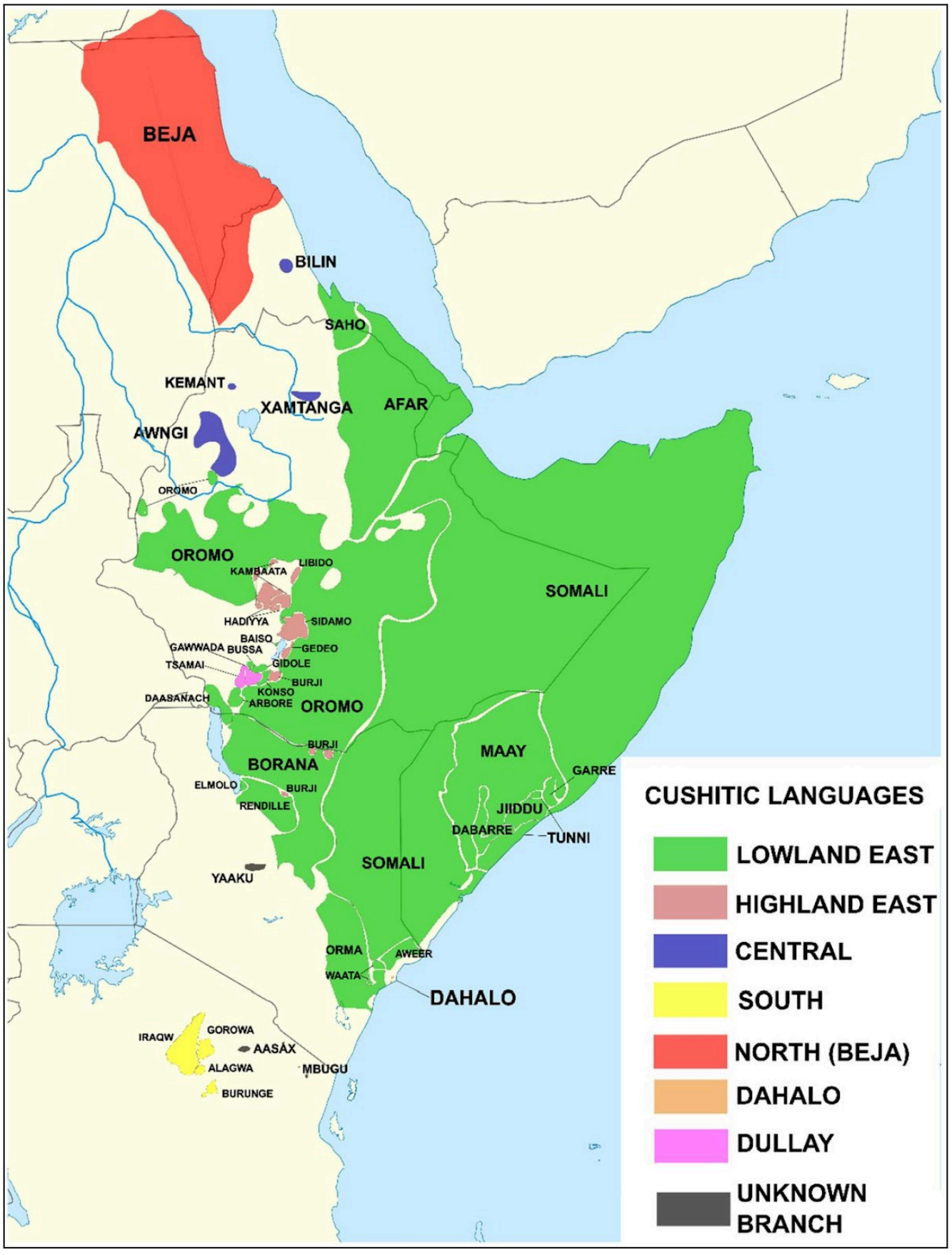


Figure 5. Map of the Cushitic languages, taken from Vanhove (2022: 265).

NB: Not all labels in this map correspond to the glottonyms used in this thesis. Please refer to the genealogical scheme in Figure 4 to compare the labels on the map with the names employed in this thesis.

2.1 Omo-Tana: 'snake'

In this section, the development of snake-related terms found in the Omo-Tana sub-branch of East Cushitic will be discussed. The Omo-Tana languages are generally internally classified as follows:

Omo-Tana

Western Omo-Tana
- Arbore
- Elmolo
- Dhaasanac

Eastern Omo-Tana
- Northern Somali
- Banaadir dialects
- Tunni
- Garre
- Boni
- Girirra
- Rendille
- (?) Jiiddu

Northern Omo-Tana
- Bayso

Within Western Omo-Tana, Arbore and Elmolo are much more closely related to each other than either is to Dhaasanac (Sasse 1975b: 8; Hayward 1984: 11). The position of Jiiddu is still an issue of debate (see Ali & Arvanites 1985; Lamberti 1988), as is that of Bayso (see Hayward 1978). The scheme below presents a genealogical tree model of the Omo-Tana languages based on Ali (1985: 16) and Tosco (2012: 278), with minor modifications. This scheme may be referred to when the labels used by Ali (1985) are mentioned in the following sections.

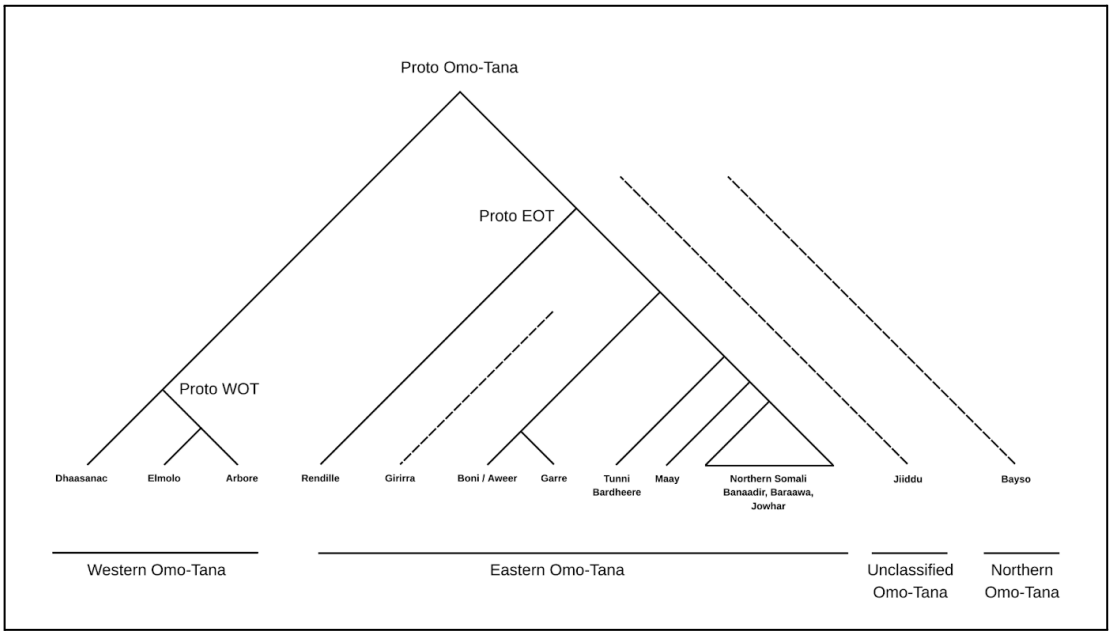


Figure 6. Omo-Tana internal classification (based on Ali 1985: 16, Tosco 2012: 278)

The aim of this section is to reconstruct the development the lexical diversity in words meaning 'snake' in the Omo-Tana languages and arrive at a reconstruction of a Proto Omo-Tana root for 'snake'.

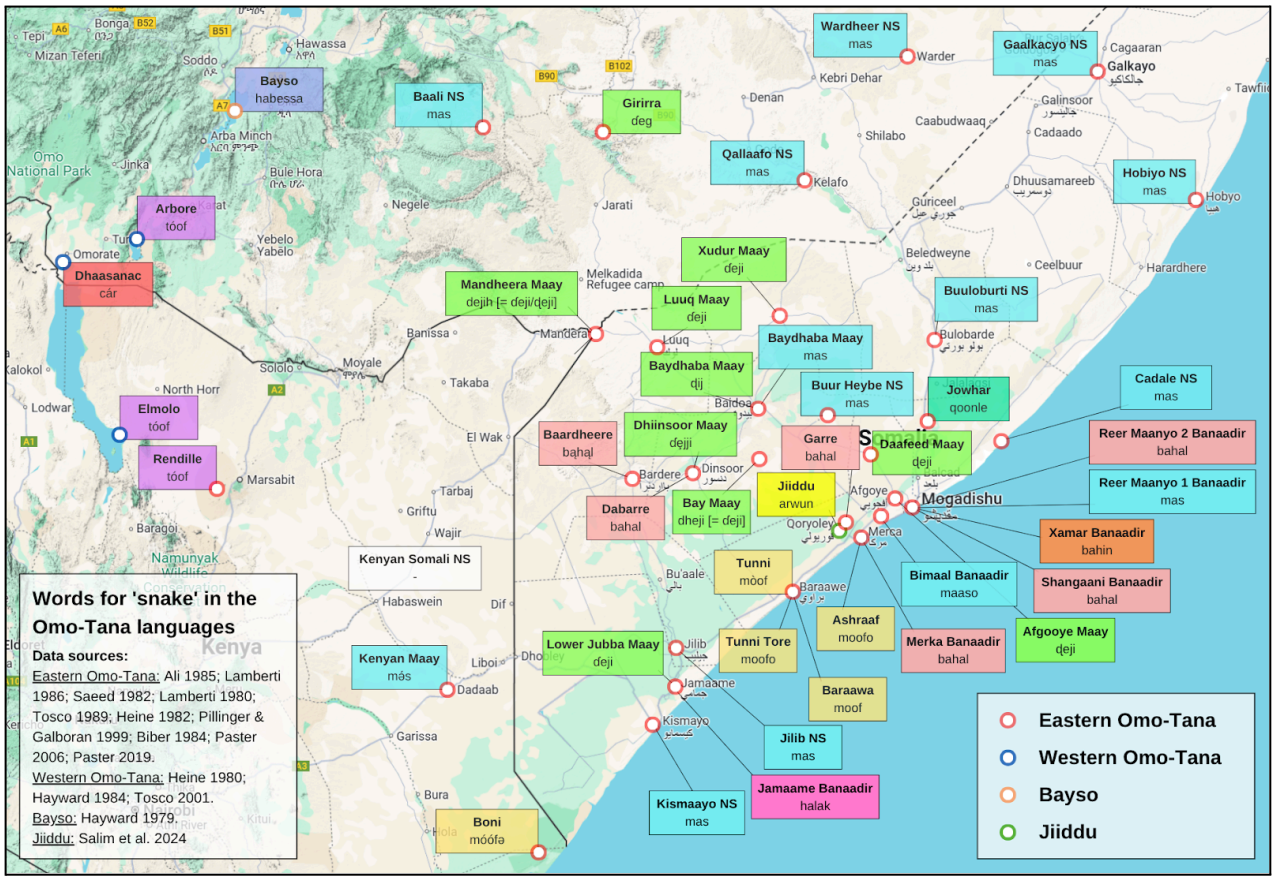


Figure 7. Lexical diversity in the generic word for ‘snake’ in the Omo-Tana languages

2.1.1 Arbore, Elmolo, Rendille: *toof- ‘snake’

A first observation that may be made here is that Rendille as the only language of the Eastern subgroup shares its word for ‘snake’ with Arbore and Elmolo of the Western subgroup. A root with a similar form is not found anywhere else in Omo-Tana. Considering the geographical proximity of Rendille to Western Omo-Tana (see figure 7), a scenario of borrowing between the two groups seems to be the most straightforward explanation. Common inheritance, on the other hand, would entail that all other Eastern Omo-Tana languages must have innovated a new root. However, no studies exist on the history of contact between Rendille and the Western Omo-Tana languages. The nature of the contact is not known, and thus neither is the direction of lexical transfer.

We can pose two contrasting hypotheses as to the direction of transfer:

1. The word **tóof** is a lexical innovation in Western Omo-Tana, and was transferred into Rendille through contact. The lack of this root in Dhaasanac can be explained by the hypothesis that Dhaasanac innovated a new word for ‘snake’ (see §2.1.2).
2. The word **tóof** is a lexical innovation in Rendille, and was transferred into Western Omo-Tana, or perhaps only into the common ancestor of Arbore and Elmolo.

Analysis of a larger set of vocabulary should confirm the history of contact between Rendille and the Western subgroup. In fact, this exchange of lexicon between the two may have been one reason why Rendille was classified as belonging to the Western subgroup by Sasse (1975b: 19), until Heine, one year later (1976: 178-179), demonstrated that Rendille shares common phonological innovations with the Eastern subgroup.[9]

[9] It was in the same paper that Heine (1976a: 178-179) coined the term “Omo-Tana” for this group of languages, replacing earlier terms such as “Macro-Somali”, “Somaloid”, and “Galaboid”.

Taking a broader look, the absence of this root elsewhere in East Cushitic suggests that **tóof** is a lexical innovation within Omo-Tana.

I here propose a development from a widespread Eastern Omo-Tana form ***toos** 'straight', e.g. Somali **toos** 'straightness; straight', Jiiddu **tuus** 'straightness; straight', and Girirra **toosinan** 'straight' (data from Zorc & Osman 1993; Salim et al. 2024; Mekonnen 2015). In Dhaasanac, a cognate may be identified in **tooc** (pl. **tooi ~ toos**) 'stick'. This would assume a sporadic sound change of **s** to **f** in Western Omo-Tana or Rendille. Within East Cushitic, the sound change from **s** to **f** is regular only in the development of Oromo and is therefore highly characteristic of this language (Sasse 1975a; 1976; 1979). On occasion, however, we find irregular hints of this sound change in the inherited lexicon of other East Cushitic languages, particularly those in contact with Oromo. For example, in Burji, **wómf-a** 'nine' corresponds to common HEC ***hons-** 'nine' as does **fóol-a** 'four' to common HEC ***sool-/*šool-** 'four' (Sasse 1982: 70, 190). In Omo-Tana, this sound change is also sporadically attested, although undescribed. For example, we find Arbore **suyé** 'eight' corresponding with Elmolo **fúe** 'eight', despite the fact that these languages are very closely related. Moreover, Proto Omo Tana ***fog-/*fag-** 'far' (cf. Heine 1981) corresponds to Proto East Cushitic ***seg-/*sag-** 'far' (cf. also Arbore **fek'á** 'far' with a regular shift from medial ***g** to **k'**). Dhaasanac **gaf** 'buffalo' corresponds with Bayso **gasii** 'buffalo' (cf. PEC ***gasar-** 'buffalo' in Sasse 1979). In light of these sporadic irregularities, we may accept **tóof** 'snake' as having developed from an earlier word ***toos** with the meaning of 'straightness; straight' as found in Eastern Omo-Tana, or 'stick' in Dhaasanac. A semantic link between 'straightness' and 'snake' is observed in Borana Oromo, where people (typically of the Gona moiety) may use the word **huriisa** 'straightness' instead of the usual **bofa** for 'snake' (Leus & Salvadori 2006: 71, 578, 344).[10] The hypothesis that **tóof** developed from ***toos** is supported by the fact that precisely Arbore, Elmolo, and Rendille lack a cognate to common Eastern Omo-Tana ***toos** 'straight'. It may be the case that one of these languages innovated the anomalous phonological form **tóof** along with the meaning 'snake', and that it diffused from there. Since Arbore, Elmolo, and Rendille are all in contact with Oromo where **s** to **f** is a regular historical change, knowledge of the Oromo sound correspondence may have influenced the development of this sound. The ad-hoc change from ***s** to **f** may in fact have been motivated by the tendency to avoid mentioning the word for 'snake', but in this case by a phonological change in addition to a lexical one, playing on a known Oromo sound shift. Given the prevalence of the root ***toos-** 'straightness' in Eastern Omo-Tana, I am inclined to consider this lexical innovation to be specific to Rendille which from there was borrowed into (the common ancestor of) Arbore and Elmolo.

2.1.2 Dhaasanac: cár 'snake'; Proto Western Omo-Tana *caar- 'leopard'

The general word for 'snake' in Dhaasanac is **cár** /tʃár/, which regularly corresponds to the word for 'leopard' in its closest relatives, Arbore **čáar** and Elmolo **čaar**, as already speculated in Blažek (2011: 275). The underlying form in Arbore has a short vowel /tʃar/.[11]

[10] A number of snake species (mostly adders) are characterised by their rectilinear locomotion (Lissmann 1950), i.e. moving in a straight line, particularly the puff-adder which is common in southern Ethiopia and is among the most deadly snakes.

[11] The Arbore word **čáar** 'leopard' is part of an inflectional set of monosyllabic words that in the singular surfaces with a long vowel, while the underlying form has a short vowel that surfaces only in the plural form **čarčar-mé** 'leopards' (Hayward 1984: 168).

Western Omo-Tana	
Dhaasanac **cár** ‘snake’	Tosco 2001
Arbore **čáar** ‘leopard’	Hayward 1984
Elmolo **čaar** ‘leopard; house fly’	Heine 1980

Table 3. Proposed cognates of Dhaasanac **cár** ‘snake’ in Western Omo-Tana

In Rendille, Somali, and Jiiddu of the Eastern Omo-Tana group, we find the root as an appearance term:

Eastern Omo-Tana	
Rendille **cháarréħ** ‘spotted, piebald, multicolored’	Pillinger & Galboran 1999
Somali **sharax** ‘speckled or spotted color’	Aadan 2013
Jiiddu **shaaren** ‘cow with stripes, different colors’	Salim et al. 2024

Table 3. Proposed cognates of Dhaasanac **cár** ‘snake’ in Eastern Omo-Tana

The meaning of ‘spotted, multicolored’ commonly links with words meaning ‘leopard’, for obvious reasons, throughout East Africa (Beer 2024). Somali **sharax** /ʃaraħ/ similarly fits the pattern nicely, with earlier affricate ***tʃ*** being lost from the phonemic inventory and continuing as the fricative **ʃ**. The same regularity is seen in Jiiddu **shaaren** ‘cow with stripes, different colours’, which also lacks /**tʃ**/. The final **n** in Jiiddu is however unexplained. Because the Eastern Omo-Tana forms are more complex in their shape, the second syllable may perhaps be regarded as a (fossilised) suffix, one by which the appearance term derives from a base meaning ‘leopard’. On the other hand, if it is Somali **sharax** and Rendille **cháarréħ** that are archaic in their form, we would have expected Arbore to preserve the /**ħ**/ as /**h**/, as we for example see in PEC ***malħ-*** ‘pus’ continuing into Arbore as **meleh** and into Somali as **malax** /malaħ/ ‘pus’. Therefore, the segment ***ħ*** cannot be reconstructed for this item in Proto Omo-Tana. I tentatively regard the **-ħ** in Somali and Rendille as an unknown fossilised derivational morpheme.

As for the semantic reconstruction, it is uncertain whether the meaning ‘leopard’ or ‘spotted’ is to be taken to the Proto Omo-Tana level. Either meaning could potentially derive from the other. This also ties to the question as to from which earlier meaning the Dhaasanac word **cár** ‘snake’ developed. Was it a semantic shift from *‘leopard’ or from *‘spotted’? Neither semantic developments are clearly attested to my knowledge.[12]

However, correspondences in Southeast Surmic, currently spoken across the Omo River, indicate that the meaning of ‘leopard’ may have a historical basis:

Southeast Surmic	
Mursi **tʃár** ‘leopard’	Moges 2001
Suri **tʃár** ‘leopard’	Moges 2001
Southwest Surmic	
Baale **tʃár** ‘leopard’	Moges 2001

Table 4. Western Omo-Tana loans into Surmic

[12] We may see some hints of a relation in Eastern Nilotic for which Vossen (1982: 301) reconstructs ***-ki-tuŋ*** ‘python’ and ***-ŋatuŋ*** ‘lion’, with ***-ŋa-*** occurring elsewhere as a prefix, but not recognised as such by Vossen in this root.

The transfer into these three languages is evident from the fact that the other Surmic languages have a different root for 'leopard', namely **kɛɛ́laŋ** in Murle, Didinga, and Laarim of the Southwest branch, and **kɛrɛɛn** in Me'en and **karúŋ** in Koegu of the Southeast branch (data from Moges 2001). The Baale form **ʧár** 'leopard' is perhaps better explained as a transfer from Suri, rather than being directly linked to a Western Omo-Tana source, as Baale is under heavy linguistic influence from Suri (see Unseth 1997; Moges & Dimmendaal 1998; Dimmendaal 2002).

Currently, Dhaasanac is spoken most closely to Mursi and Suri, with Arbore and Elmolo at greater distance. The transfer into Mursi and Suri seems to have taken place not too far back in history, given that the form and meaning are identical to what we find in Arbore and Elmolo (note that vowel length is not phonemic in Mursi and Suri). Dhaasanac in its current form is eliminated as a potential donor language, as it shifted the meaning of this root from 'leopard' to 'snake'. It is unknown at what point in time this meaning has shifted. It is also unknown when these Surmic languages were in contact with Western Omo-Tana. Turton (1973: 27) does report that the Mursi place their traditional homeland to the southeast, in present-day Borana country.[13] In any case, these transfers into Surmic do lend support to 'leopard' as reconstructed meaning at least at the Proto Western Omo-Tana level, meaning that Dhaasanac underwent a semantic shift from 'leopard' to 'snake'.

In Dhaasanac, there is also a word **caɗ-ɗi** meaning 'worm' which appears to originate from the same root as **cár** 'snake'. Their plural forms are identical, **caara** for both. The word **caɗ-ɗi** 'worm' displays the feminine singulative suffix **-ti/-ɗi** which causes the root-final **r** to assimilate to **ɗ**.[14] A similar instance of a semantic split arising due to gender affixation in Dhaasanac is **faric** 'horse' (Sg.M) vs. **farti** 'oryx' (Sg.F), both having the same plural form **fára** 'horses' (Tosco 2001: 82).

2.1.3 Northern Somali: mas 'snake'

Northern Somali, which forms the basis for Standard Somali, is unique within the Omo-Tana branch of East Cushitic in having the word **mas** for 'snake'. No cognates to **mas** are attested in other Eastern Omo-Tana languages. The sporadic presence of the word **mas** 'snake' in southern Somali varieties can be regarded as a result of borrowing from Northern Somali. The following are attested in the literature:

Eastern Omo-Tana	
Northern Somali **mas** 'snake'	Ali 1985
Bimaal (Banaadir) **maaso** 'snake'	Lamberti 1986
Reer Maanyo 1 (Banaadir) **mas** 'snake'	Ali 1985
Baydhaba Maay **mas** 'snake'	Ali 1985
Kenyan Maay **más** 'snake'	Smith 2022; Di Maio 2023
Kenyan Maay **mas** 'snake'	Paster 2019

Table 5. Attestations of **mas** 'snake' in Somali dialects

Ali (1985: 301, 304) indeed identifies the items in Baydhaba Maay and Reer Maanyo 1 as loans. They diverge from the common root for 'snake' within their respective dialects groups, namely **ɖeji~ɗeji** 'snake' for Maay and **bahal** 'snake' for the Banaadir group. In Saeed's (1982: 117) earlier work on Baydhaba Maay, however, the word **ɖjj** 'snake' is reported. In Paster (2019), the word **mas** 'snake' is reported for a Maay variety of Kismaayo. The form

[13] The historical movements recollected by the Mursi are further described in Turton (1988).
[14] This assimilative process is also observed for instance in **cér** 'dog.M', inflected as **céɗɗi** 'dog.F' by affixation of **-ti** (see Tosco 2001: 79).

in that paper is attributed to speaker "AM", who elsewhere in the paper also gives the expected Maay form **ɗedʒi** for 'snake'. The attestations of **mas** in dialects other than Northern Somali should therefore perhaps not be understood as a definitive lexical replacement, but rather as a case of competing lexicon among speakers exposed to different dialects. Thus it may be the case that this bilingual speaker has integrated vocabulary from Standard Somali into their native Maay speech.[15] Smith (2022) and Di Maio (2023), working with the same refugee speaker of Kenyan Maay, also elicit **mə́s** as the word for 'snake'. It is not known whether this speaker would also accept **ɗeji ~ ɖeji** as word for 'snake'.

Etymologies for Somali **mas** 'snake' have been proposed by Sasse (1976: 127) and Lamberti (1986: 219, 268, 423), although not without problems. Lamberti (1986: 219) reconstructs two distinct etyma for Old Somali, ***amas-o** 'snake' and ***abaas-aa** 'viper', the first of which, he claims, continued as **mas** 'snake' in Northern Somali, and the second as **maaso** 'snake' in Bimaal (a Benaadir dialect). He thereby implies that these two dialectal forms that both mean 'snake' and are nearly identical in form go back to different roots. This is highly improbable, as dialectal variation between the presence and absence of final **-o** on nouns is common, and can even be found in dictionaries of Somali, e.g. in Zorc & Osman (1993): **mas ~ maso** 'snake', **xiis ~ xiiso** 'interest, desire', **hinaas ~ hinaaso** 'jealousy'. Lamberti (1986: 423) further backs up his claim of connecting Bimaal **maaso** 'snake' with his root ***abaas-aa** 'viper' by arguing that the sound-alternation ***m/b** is very old, drawing an etymological link with forms such as Oromo **bofa** 'snake', Saho/Afar **abeesa** 'snake sp.', and Burji **hamasi** 'snake' (which I will show are unrelated). These connections however do not bear any comparative justification for the developments within the Eastern Omo-Tana group and are wholly ad-hoc. Besides, he does not mention the word for 'viper' in Bimaal (I would presume it is **abeeso**) which would contradict his claim. It also seem to suggest that Lamberti's internal reconstruction is affected by external forms which he sees as cognates and ignores the regularity of sound change, defying his methodology. Each of these roots will be discussed in further sections (see §2.1.11; §2.6).

Old Somali ***amas-o** 'snake'
  Northern Somali **mas** 'snake'

Old Somali ***abaas-aa** 'viper'
  Bimaal (Banaadir) **maaso** 'snake'

Table 8. Lamberti's proposed reconstruction for Somali **mas** (1986: 219)

Lamberti's reasoning may have been drawn from Sasse (1976: 127), who commits a similar fallacy. Sasse proposes a Proto East Cushitic root ***maš-** 'snake' which he claims is represented by the following:

PEC ***maš-** 'snake'
  Somali **mas** 'snake'
  Oromo **mas-ka** 'snake'
  Dhaasanac **mas** 'rope'
  Sidaama **ha-mas-o** 'snake'
  Hadiyya **ha-mas-iččo** 'snake'
  Burji **ha-mas-i** 'snake'

Table 9. Sasse (1976: 127)

[15] Paster (2019: 2) reports that speaker AM is from Kismaayo, Somali, but spent time in Kenya. Smith (2022: 3) and Di Maio (2023: 3) report their speaker to have grown up in Dadaab, Kenya, although her parents are originally from Bu'aale in the Lower Jubba region of southern Somalia.

There are several issues with this proposal. The first issue concerns the Oromo word **mas-ka** 'snake'. It seems that Sasse has taken this word from the dictionary of Harar Oromo by Da Thiene (1939: 239-240), where it appears as <**masca**> 'serpente boa con le corna' and <**masqa**> 'serpente boa'. To my knowledge, it is the only Oromo dictionary that reports this word.[16] Moreover, the shape of the word is quite odd, given that there are no native Oromo words that have an **-sk-** cluster.[17] This fact is admitted by Sasse (1976: 128), who argues that this anomalous formation is due to the element **-ka** being a suffix, and he draws a parallel with a similar formation in the word **reef-ka~reef-a** 'corpse' (from Pre-Oromo ***rees-a** as per Sasse 1982: 159). However, there is no known suffix **-ka** in Oromo, and the form **reefka** is again only found in Da Thiene (1939) as other dictionaries have **reefa**. The dictionary by Da Thiene (1939) appears quite unreliable. It contains vocabulary found in no other sources and it includes numerous loanwords, especially from Amharic and Arabic, which are again not attested in other dictionaries. It must be noted here that Da Thiene's dictionary is based on the writings and unpublished lexicographic works of Andrea Jarosseau (1858-1941), a Capuchin missionary in Harar (Alberto 2007: 270; Conti Rossini 1944: 111). There is no mention of the sources and linguistic varieties on which Jarosseau based his work. The word <**masca**> may be one of the many foreign elements having made its way into the dictionary.[18] It appears likely that **maska** is to be identified as the Somali word **mas-ka**, meaning 'the snake', with **-ka** being the definite determiner suffix (Mohamed Ismail 2011: 252). While the linguistic contact between Oromo and Somali is still very poorly understood, it should not come as a surprise to find Somali lexicon in Harar Oromo, as it directly borders on Somali-speaking areas. A final flaw concerning this word that must be pointed out is that Sasse (1976: 127-128) misrepresents the meaning of <**masca**> 'serpente boa con le corna' simply as 'snake', giving the impression that this word is a basic vocabulary item.[19]

The second issue is the segmentation of the three Highland East Cushitic forms. There is no ground on which the initial syllable **ha-** can be separated from **-mas-** in these languages, be it synchronically or diachronically. The author gives no explanation. Sasse further speculates that the root ***maš-** may be connected with another proposed root ***bVs-**, which he bases on forms such as Somali **abeeso** 'viper' and Oromo **bofa** 'snake'. In the present study, these forms are viewed as representing separate roots (see section §2.1.11 and §2.4.2).

What remains is Sasse's (1976: 127) link with Dhaasanac **mása** 'rope', which seems to be in fact the only plausible link with Somali **mas** 'snake'. Since there are no sound changes that would affect the structure of this root, the only required change would be a semantic one.

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[16] This is based on having consulted the following dictionaries and vocabularies: Tutschek (1844), Venturino (1973), Heine (1980a; 1981a), Gragg (1982), Stroomer (1987; 1995; 2001), Ibsaa (2004), Xilaahun (2004), Leus & Salvadori (2006), Hoskins (2025).

[17] In Stroomer (1987), all instances of words containing medial **-sk-** sequences are loans from Swahili or Arabic. The sequence **-fk-** is also absent in Stroomer's works (1987; 1995). Ibsaa (2004) lists three words containing an **-sk-** cluster: **maaskoo** 'treat taken when relatives of in-laws die', **askara** 'Milletia ferruginea', and **askutii** 'the first *marqaa* on the occasion of childbirth'. However, none of these appear in other major dictionaries and are not easily attributable to an external source.

[18] Zaborski (1984: 293-294) commends the fact that one-third of the items in Da Thiene's (1939) dictionary are not found in Gragg's (1982) dictionary. To me, this rather indicates the contamination of this work with foreign elements and highlights the need for a critical examination of Da Thiene's work.

[19] It may also be noted here that Da Thiene's (1939) original definition of <**masca**> as 'serpente boa con le corna' (i.e. 'boa snake with horns') is dubious. Boa snakes are exclusively found in South America. The author may have meant to refer to the python instead, another species of constricting snake. However, no species of constricting snake is known to have horn-like protrusions, which is rather a feature of some viper species (sp. Bitis and Cerastes).

Western Omo-Tana	
Dhaasanac	
mas ‘rope’	Sasse 1974
más-a ‘rope’	Tosco 2001
másа ‘rope; power’	Ness 2023
Eastern Omo-Tana	
Somali **mas** ‘snake’	Zorc & Osman 1993

Table 10. Possible cognation between Dhaasanac ‘rope’ and Somali ‘snake’

The same link was also drawn by Ehret (1991: 218) who proposed the Proto East Cushitic root ***mas-/*mis-** based on the above two languages and adding Yaaku **misa’** ‘belt, rope, thong’:

Proto East Cushitic ***mas-/*mis-** ‘cord’
Dhaasanac **más-a** ‘rope’
Somali **mas** ‘snake’
Yaaku **misa’** ‘belt; rope; thong’

Table 11. Ehret’s (1991: 218) proposed reconstruction PEC ***mas-/*mis-** ‘cord’

What confuses the matter is Ehret’s earlier publication of 1987 on the reconstruction of Proto Cushitic in which he proposed a reconstruction ***ma(a)s-** ‘strip, strand’ based on another Yaaku word:

Proto Cushitic ***ma(a)s-** ‘strip, strand’
East Cushitic
Proto Omo-Tana ***mas-** ‘cord’ (Som. ‘snake’)[20]
Yaaku **maasu** ‘maggot occurring in rivers’[21]
Agaw
Awngi **mas** ‘stubble’
South Cushitic
Burunge **masiya** ‘tooth-stick’[22]

Table 12. Ehret’s (1987: 99) proposed reconstruction Proto Cushitic ***ma(a)s-** ‘strip, stand’

The change in the choice of a Yaaku cognate between the two publications remains unexplained by Ehret (1991). I will not take the proposed Awngi and Burunge cognates into consideration here, as both are isolated attestations in their respective families which have not been shown to be reconstructable to a proto-level. Besides, both require bridging quite a large semantic distance. Neither semantic shift is precedented to my knowledge, and in light of the lack of any elaboration on Ehret’s side, his proposal is to be deemed highly implausible.

The East Cushitic nature of the Yaaku word **misa’** ‘belt; rope; thong’ becomes clear when we compare the Borana Oromo word **miseensa** ‘string’ (Stroomer 1995: 210), where **-eensa** is a common fossilised nominal ending. This word was not yet attested at the time of Ehret’s

[20] While Ehret (1987: 99) provides no actual linguistic data here, we can infer that his Proto Omo-Tana reconstruction is based on both Dhaasanac **mas** ‘rope’ and Somali **mas** ‘snake’.
[21] The Yaaku word **maasu** is taken from Heine (1975a: 129). In this source, a formally identical word **maasu** is also listed with the meaning of ‘eriobotrya (japonica lo[q]uat)’ which has the exact same plural formation **maásai**.
[22] Kießling (n.d.) reports the word **masiya** (**masa**) in the meaning ‘Maerna triphylla’. It is thus likely that this is simply the name of the tree from which tooth-sticks are taken. The same polysemy exists for Hamar **riggíma** ‘tree sp.; tooth-cleaning stick’.

publication. If the Yaaku and Oromo word are cognate, it would mean that the **s** in these words derives from Proto East Cushitic ***š**. This would also correspond with **s** in Omo-Tana, although Omo-Tana ***s** could also reflect PEC ***s** as the result of a merger (Sasse 1979: 33). Due to the mismatch of the vowel it is difficult to determine the cognacy of ***miš-** and ***mas-**. We can also not exclude the possibility that the Yaaku word is a loan from an earlier stage of Oromo (before the addition of **-eensa**), given the identical root structure and meaning despite their genealogical distance.

Notwithstanding Ehret's (1987; 1991) proposals, we are still left with the question which meaning between Somali **mas** 'snake' and Dhaasanac **más-a** 'rope' is to be reconstructed for the proto-level. Both directions of semantic developments have been attested (see §5).

Internal evidence from Dhaasanac suggests a development of 'snake' to 'rope'. A fossilised element **-maach** (pl. **maas(am)**) is found in the following terms which all denote reptile-like animals:

Dhaasanac
armaach 'monitor lizard' (pl. **armaasam**)
gumaach 'terrapin (tortoise)' (pl. **gúmaas**)
tumaach 'gecko' (pl. **túmaas**)
oldumach ~ oldumaach 'roundworm'

Table 13. Dhaasanac forms ending in **-maach** (Ness 2023)

Only in the case of **armaach** 'monitor lizard' (**aarmac** in Tosco 2001) can we identify the first element, which is **ár ~ áár** 'bull', evidently due to the enormous size of the monitor lizard—a formation similar to the English word *bullfrog*. Incidentally, the Somali word for 'monitor lizard', **masacagaley**, is built on the root **mas** 'snake' (lit. 'snake with feet'). I take the plural forms having **s** as archaic, and thereby linking it with **mas** 'rope'. The word final **-c** is identified as a formative suffix in Tosco (2001: 86, 88, 92), and appears to be related to the masculine singulative suffix **-ac**. In the plural forms of some of these, stem-final **-s** surfaces:

Singular	Plural	Comment
gaac 'shadow' (m.)	**gaasam** 'shadows'	PEC ***gaazz-/*geezz-** 'shade'[23]
tooc 'stick' (m.)	**tooi ~ toos** 'sticks'	cf. Somali **toos** 'straightness'
aarmac 'mon. lizard' (m.)	**aarmasam** 'mon. lizards'	cf. Somali **mas** 'snake'

This may be further supported by the fact that both **armaach** 'monitor lizard' and **mas** 'rope' have a similar plural formation, respectively **armaasam** and **masam**. The words **tumaach** and **gumaach** have a different plural formation, respectively **tumaas** and **gumaas**, without the regular **-am** suffix. This could indicate that these plural forms are actually the base forms, and that the singulars ending in **-ch** are derived by the masculine singulative marker **-ac**/**-c** (see Tosco 2001: 76, 86). The mismatch in vowel length is not taken as an issue, as Tosco (2001) reports **ʔaarmac** 'monitor lizard' with a short vowel, and the word **oldumach** displays internal variation in vowel length in Ness' (2023) data. The semantic development from 'snake' to 'rope' is also attested in Oromo (see §5) and Kafa (see §3.2.5).

Based on the arguments given above, I will carefully propose Proto Omo-Tana ***mas-** 'snake'.

[23] Sasse (1982: 72). Final ***-z** seems to yield **-s** in Dhaasanac, as also in **bas** 'lake' < PEC ***baz-**.

I will now explore further East Cushitic links to this root outside of the Omo-Tana branch. Based on regular sound correspondence, the Omo-Tana root ***mas-*** reconstructs to either PEC ***mas-*** or ***maš-***. Most branches of East Cushitic have neutralised this contrast, however, only being preserved in Oromo where ***š*** > **s** and ***s*** > **f**, and Dullay where ***š*** > **š** and ***s*** > **s** (Sasse 1979: 33). Unfortunately, we do not find cognates in these groups. I propose the following items as potentially cognate to Somali **mas** 'snake':

Highland East Cushitic	
Sidaama **mas-** 'to become shocked, to fear'	Kawachi 2007
Sidaama **maso** 'contempt, scorn, fear'	Gasparini 1983
Hadiyya **masoʔo** 'enemy'	Tadesse 2015
Kambaata **mas-ichchu** 'jealous'	Alamu 2009
Burji **masoo** 'miracle, wonder'	Roba & Wedekind 2008
Saho-Afar	
N. Saho **mashshi** 'fear, fright, scare'	Vergari & Vergari 2003
S. Saho **maysi** 'fear, fright'	Tsegay & Mulugeta 2015
Afar **meysi** 'fear, cowardliness'	Parker & Hayward 1985
Afar **maysí** 'fear'	Reinisch 1887
Afar **miisí ~ meesí ~ meysí** 'fear, dread; peril (cause of fear)'	Morin 2012

Table 14. Potential cognates to Omo-Tana ***mas-*** 'snake'

A link between the Saho-Afar forms and the Highland form seems undeniable given the semantic match with the Sidaama form. Formally, the correspondence is quite regular too, given that Proto East Cushitic root-final ***s-*** tends to find the addition of a palatal element in Saho-Afar, e.g.:

PEC	N. Saho	Afar
gaas- 'horn'	**gashsha** 'horn'	**gaysa** 'horn'
bis- 'flower, color'	**bisho** 'appearance'	**bisu** 'appearance'
mas- 'fear'	**mashshi** 'fear'	**maysi ~ meysi** 'fear'

Based on these correspondences, we can propose PEC ***mas-*** 'fear, dread'. The diverging meanings found in Highland East Cushitic (as found in Hadiyya, Kambaata, Burji) must have developed from this original meaning which was preserved in Sidaama. I take the meaning of **mas** 'snake' in Somali to be a secondary development, from the earlier meaning of 'fear, dread'. This development is not unique. In Borana Oromo, we find the word **jiilicha** as a euphemism for **bofa** 'snake', deriving from the base **jiilcha** 'to cause fear'. And in Konso, the word **kool-aa** 'poisonous snake sp.' appears to be the regular cognate to Oromo **gool-** 'to disturb, to terrorise' (data from Black & Shako 1973; Ibsaa 2004).[24] Furthermore, in section §2.4.1, I suggest that Proto Central East Cushitic ***maag-*** 'snake' may be cognate to Somali **mąag** 'to avoid something out of fear'.

This hypothesis fits well with the idea that the meaning of 'snake' must be older in Omo-Tana and that the meaning of 'rope; power' in Dhaasanac is an innovation (see the discussion above). Evidently, this is because a direct semantic shift from 'fear' to 'rope' seems

[24] Black & Shako (1973) report Konso **kool-aa** as 'type of snake (very long, lives in trees, has poisonous bite)'. In the storybook by Hayleyesus Karshaba (2021: 6), **koolaa** is depicted as a hooded snake. It is therefore likely that **koolaa** refers to the "black-necked spitting cobra" (*Naja nigricollis*) which indeed is quite long, poisonous, and is often found in trees. Cobras are known for their iconic threatening behaviour whereby they raise the front part of their body and spread their hood. This behavioural trait may be the basis for this particular semantic development. The Orma cognate to this word is more specific in its semantics: **goolaati** 'to threaten someone with words or a weapon for the purpose of frightening them into a certain action or to deter them from a certain action, to intimidate'.

fairly inconceivable, while the chain development 'fear' > 'snake' > 'rope; power' is highly plausible, and supported by independent parallel developments.

In Turkana, an unrelated Eastern Nilotic language, we find a highly similar word:

Eastern Nilotic	
Turkana	
(a-nga-)mas 'cord; leather rope; thong'	Barrett 1990
amasi / ngamasin 'string'	Ohta 1989

The idea that within East Cushitic, Dhaasanac is unique in having innovated the meaning of 'rope' for this root ***mas-** suggests that this Turkana item must be a loan from Dhaasanac **másа** 'rope; power'. Indeed, the Turkana word appears to have no cognates elsewhere in Eastern Nilotic, not even in the very closely related Teso and Karimojong languages.[25]

2.1.4 Dabarre, Garre, Banaadir: *bahal-

The word **bahal** is found as the generic word for 'snake' in Dabarre, Garre, and Banaadir Somali, all spoken in southern Somalia.[26] This root is widespread in Eastern Omo-Tana, and it appears to be derived from an older meaning of 'wild animal', which is preserved in Northern Somali. Consider the following cognate set:

Eastern Omo-Tana	
Garre **bahal** 'snake'	Tosco 1989
Dabarre **bahal** 'snake'	Lamberti 1980
Banaadir **bahal** 'snake'	Lamberti 1986
Merka Banaadir **bahal** 'snake'	Ali 1985
Shangaani Banaadir **bahal** 'snake'	Ali 1985
Baardheere **bąhąl** 'snake'	Ali 1985
Boni ***bààhál** 'puff-adder'	Heine 1982
N. Somali **bahal** 'wild animal, beast'	Lamberti 1986
Rendille **baħassí** 'lion'	Pillinger & Galboran 1999

Table 15. Reflexes of the root ***bahal-**

Heine (1978: 75) reconstructs Proto Sam (i.e. Proto Eastern Omo-Tana) ***bahal** 'poisonous snake sp.' on the basis of (Northern) Somali and Boni. In contrast, Lamberti (1986: 243, 360) also takes Rendille **baħassí** 'lion' into consideration and proposes Old Somali ***bakal-** 'wild animal'. This proto-meaning appears more probable, also in light of the observation that senses of 'snake' commonly develop from words originally meaning 'wild animal'. This means that Northern Somali **bahal** solely preserves the archaic meaning of 'wild animal'. Lamberti's reconstruction of medial ***k** seems unwarranted, however, as no contemporary Omo-Tana language has **k** as a reflex. Sasse's (1979: 41) brings back the root ***bahal-** 'wild animal' to the Proto East Cushitic level, but based solely on attestations in Somali and Rendille. The root at the PEC level has to be rejected, as there is no support for this root in this meaning going back any further than Proto Eastern Omo-Tana. I therefore propose the Proto Eastern Omo-Tana root ***bahal** 'wild animal'. Note that in Northern Somali, the

[25] Vossen (1982: 415) reports a different word for 'rope' in Turkana than Barrett (1990) and Ohta (1989), namely **a-kobit-o** which matches with the Proto Lotuko-Maa form ***-kopit-**. He does remark on the issue of there being many different words for all kinds of rope (Vossen 1982: 106).

[26] In Dabarre and Garre, the words **eβeesə** and **abeesa** respectively are also reported with the generic meaning of 'snake' (Lamberti 1980; Tosco 1989), but this gloss appears to be an underspecification. Lamberti (1986: 268) reports these with the meaning 'viper' which appears more probable, and would match the overall Eastern Omo-Tana pattern (cf. Somali **abeeso** 'viper').

compound **bahal hoose**, literally 'lower beast', may be used as an avoidance term for **mas** 'snake'.

The Rendille word **baħassí** 'lion' is a lexicalised form of an originally morphologically complex formation. By a regular process in Rendille, word final **l** assimilates with **-t** to **ss** (Pillinger & Galboran 1999: 27). The suffix **-tí** is reported as a possessive nominal suffix (Heine 1976a: 13). The same suffix can be seen in the word **yaħassí** 'crocodile' (cf. Somali **yaxaas** /yaħaas/ 'crocodile'). Lamberti (1986: 360) analyses the fossilised suffix as **-tu**, and implies a vocative function. The development of a sense of 'lion' from 'wild animal' is also seen in Semitic, where Proto Northwest Semitic ***ʔarway-**/***ʔaryay-** 'lion' likely developed from a more general meaning of 'wild beast' in Proto West Semitic (Kogan 2015: 236, 241; Militarev & Kogan 2005: 24).

External links to Proto Eastern Omo-Tana ***bahal** 'wild animal' are not readily found. Kießling & Mous (2003: 37, 68) relate the Proto West Rift root ***bahaa** 'hyena' to East Cushitic ***bahal-** 'wild animal', taking the East Cushitic form as more archaic, with PWR losing ***l** in non-initial position.

Within East Cushitic, we may compare Saho-Afar **bakal** 'baby he-goat', although the correspondence was not identified in Sasse's (1979) work on East Cushitic historical phonology. Saho-Afar **k** is expected to match **k** in Omo-Tana (Sasse 1979: 11). In word-medial position between vowels, however, a correspondence is observed between Saho-Afar **k** and Omo-Tana **h**, for example in the roots for 'donkey' and 'thirst':

> Saho **okolo** 'donkey', Afar **oklo** 'female donkey';
> Arbore **ohol** 'donkey', Dhaasanac **olo** 'donkeys', Jiiddu **uul** 'donkey'
>
> Saho **bakhar** 'thirst', Afar **bakar** 'thirst';
> Arbore **baharé** 'thirst', Dhaasanac **báre** 'thirst'.

These roots were not considered in Sasse's (1979) study. Furthermore, it may be remarked that in Conti Rossini's (1913) sketch of Saho we find the form **baḫàl** 'goat kid' (presumably [baˈxal], with a velar fricative). If there is indeed a link, we would assume that the more general meaning of 'wild animal' is most archaic. Perhaps as a conceptual parallel, we can make note of the "male kid as a naughty wild creature" in the symbolic universe of the Arbore (Miyawaki 1997). We may also compare Arabic **ʔarwē** 'mountain goats (coll.)', which, like Tigre **arwe** 'snake', developed from Proto Semitic ***ʔarway-** 'wild animal' (Hamza Khwaja, p.c.). The historical phonology of these medial consonants in East Cushitic awaits further study in order to ascertain the etymological link. This would add to our understanding of how words for 'wild animal' shift their meaning throughout history.

2.1.5 Boni, Tunni, Baraawa, Ashraaf: *moof- ‘snake’

The attestation of the root ***moof-** ‘snake’ is limited to various coastal Southern Somali varieties. It is found in Boni, Tunni, Baraawa, and Ashraaf:[27]

Eastern Omo-Tana	
Boni ***móófə̀** ‘snake’	Heine 1982
Boni **móofi** ‘snake’	Sasse 1979
Boni **móf-ua** ‘snake’	Fischer 1878
Tunni **mòof ~ mòofa** ‘snake’	Tosco 1997
Tunni **moofa** ‘snake’	Ali 1985
Tunni Tore **moofo** ‘snake’	Ali 1985
Baraawa **moof** ‘snake’	Ali 1985
Ashraaf **moofo** ‘snake’	Lamberti 1986

Table 16. Attestations of the root ***moof-** ‘snake’

The distribution of this word is peculiar, as the dialects do not form a low-level group. Tunni and Boni are thought to be an early split-off from what Ehret & Ali (1984) term Proto-Soomaali III, while Baraawa splits off from Proto Banaadir-Northern after the split-off of Proto Maay (see Ali 1985: 16 for a classification). Considering this genealogy, it would be very unlikely that all ***moof-** ‘snake’ forms in these languages are inherited from a common ancestor, especially because we hypothesised earlier that Northern Somali **mas** ‘snake’ is a retention from Proto Omo-Tana (see §2.1.3). The areal occurrence of the ***moof-** root rather suggests horizontal areal diffusion. The question is where the root originates. It seems likely that the Baraawa variety of the Banaadir-Northern group —the speakers of which call themselves “Tunni”— has adopted the word from Tunni. Ali (1985: 178) indeed recognises a major input from Tunni into the Baraawa dialect. The Ashraaf dialect, which appears to also belong to the Banaadir-Northern group, may be similarly influenced by Tunni. For Boni, being at great distance from the other dialects, it is harder to imagine such a scenario. Ali (1985: 177) does however mention a Tunni migration starting in the 11th century towards the southwest, going as far as Lamu, and would likely have brought these speakers in contact with Boni.[28]

Various scholars have related the root ***moof-** ‘snake’ to Oromo **bofa** ‘snake’. On the Ashraaf and Boni forms, Lamberti (1986: 421) notes: “Diese beiden Formen mit **f** gehen auf den Einfluss des Oromo **bofᵃ** ‘Python’ zurück.”[29] In this, he again repeats Sasse’s (1976: 127) line of thinking: “Aweera [i.e. Boni] **moofi(ya)**, Gidole [i.e. Dhirayta] **paf** und Burji **bofi** ‘Python’ dürften vom Galla [i.e. Oromo] beeinflußt sein.” It is hard to grasp what these authors mean by “influence”. If ***moof-** were truly a borrowing from Oromo **bofa** ‘snake’, we would expect a much closer phonological match, since there seems to be no regular phonological scenario in which Oromo **b** would be adopted as **m** and the vowel **o** lengthened to **oo**.

I instead would like to consider an alternative hypothesis. The Southern Somali forms ***moof-** ‘snake’ find an exact phonological match in Oromo **moofaa** ‘someone/something

[27] Lamberti (1986: 201) also reports the word **moofə** ‘snake’ for Maay, although this attestation is not supported by data from any author (see Figure 7). Rather, it has been convincingly shown that Maay uniquely has the root **#ɖeji** for ‘snake’ (Ali 1985; Mohamed Ismail 2011: 138; see section §2.1.6). Because Lamberti does not report the specific Maay-speaking locality in which he attested the word, I regard this item in Maay as dubious and will not include it in the discussion here.

[28] Ali (1985: 177) unfortunately does not provide a source for this history. He makes several claims about Tunni migrations, an Oromo presence in southern Somalia, and an alliance between the Tunni and the Oromo, but this information could not be traced in the references he provides, if he provides a reference at all.

[29] Lamberti (1986: 421) misrepresents the meaning of **bofa** here. All lexical resources on Oromo agree **bofa** having the generic meaning of ‘snake’. The meaning of ‘python’ is rather expressed by **jawwee**.

old, aged', derived from the adjective **moofa** 'old, ruined, worn out' (Leus & Salvadori 2006: 463). Semantically, however, these forms may appear too far apart. Yet, we observe a convincing parallel in Girirra, another Eastern Omo-Tana language that is spoken in Ethiopia. In Girirra, we find the form **dʒarso~dʒaarso** 'viper-like snake' (Mekonnen 2015: 332, 366), which is clearly to be identified with Oromo **jaarsa** /dʒaarsa/ 'old person, old animal' (Leus & Salvadori 2006: 362) or **jaarsoo** 'old (of persons) (Xilaahun 2004: 281). Interestingly, the Girirra form **dʒaarso** is also listed in the meaning 'poisonous spider'. This corroborates the hypothesis that the form is an Oromo loan, and the underlying meaning of 'old (animate)' may perhaps be salient to speakers. Girirra speakers are reported to be bilingual in Oromo and Somali (Abdurahim 1993: 2; Mekonnen 2015: 5). In fact, it may be the case that the use of the word **dʒaarso** 'old person, old animal' is a productive strategy among Oromo speakers to avoid naming these highly dangerous animals, which has been taken over by Girirra speakers to fill this lexical slot—although this awaits further investigation. In the first description of Girirra, Abdurahim (1993: 18) reported no palatal phonemes /**dʒ**/ and /**tʃ**/, while Mekonnen's (2015: 16, 22) extensive work does report these as phonemic, although marginally. Among the words containing these palatal affricates, other loanwords can be identified[30], such as **dʒawwee** 'python' from Oromo **jawwee**, corroborating the idea that **dʒaarso** 'viper-like snake' is a loan from Oromo **jaarsa** 'old person, old animal'.

Further support for the hypothesis that a word for 'old man' is employed to denote a dangerous animal is found in Midob (Darfur Nubian), for which Werner (1993: 112) reports **(pòojín) pàngátté** as the word for 'lion' which literally means 'old man (of the desert)' (cf. **pòojí** 'desert'). No other word for 'lion' was reported in Werner's vocabulary. Also in Standard Somali, do we find some mention of a snake's age. The poisonous snake species **abris** is described in the monolingual dictionary by Aadan (2013: 19) as *halaq gaboobay*, i.e. 'an old reptile'. In Puglielli & Mansuur (2012: 210), the word **dhajis** is described as *mas gaboobay*, 'an old snake'.

Given this semantic parallel in Girirra, I would deem it plausible that the Southern Somali forms ***moof-** 'snake' originate from the Oromo form **moofaa** 'someone/something old'. This form is characteristically Oromo, as it shows the Oromo sound change from ***s** to **f**. Sasse (1976: 127) reconstructs Oromo **moof-** to Proto East Cushitic ***moos-** 'old', also based on the Hadiyya cognate **moosira** 'old (of things)'. It appears that this root is reflected in Somali **boos** 'very old and worn-out thing; decrepit person' (Zorc & Osman 1993).

Accepting the hypothesis that the roof #**moof-** 'snake' spread from Tunni into other Somali dialects entails that Tunni singularly adopted this item from Oromo. In that scenario, we would expect to find more transfers from Oromo into Tunni. Yet, a first glance at the Tunni lexicon documented by Tosco (1997) does not point to any clear evidence of contact with Oromo. Boni, on the other hand, has had a history of intense contact with Oromo. Heine (1982: 84) observes that "Boni language has been deeply influenced by Oromo". We should therefore not exclude the possibility that the item was only transferred into Boni, and from there spread to Tunni (and from there, to other dialects) rather than Tunni adopting it directly from an Oromo source. Since Boni is thought to be most closely related to the Garre dialect (see Tosco 1994), for which we find **bahal** 'snake', we can assume that the word for 'snake' in Proto Garre-Boni was also ***bahal**. The Boni form **bààhál** 'poisonous snake sp.' must have been a later semantic narrowing, perhaps after the adoption of **moofə** as the new word for 'snake'.

[30] This includes loans from Arabic such as **dʒawaab** 'answer', **dʒaap** 'pocket', and **dʒinni** 'bad spirit'.

2.1.6 Maay: *ɗej- ‘snake’; Girirra: ɗeg

Similar forms for ‘snake’ are found in Maay and Girirra:

Eastern Omo-Tana	
Maay	Paster 2006
Baydhaba Maay **ɖij**	Saeed 1982
Luuq Maay **ɗeji**	Ali 1985
Xudur Maay **ɗeji**	Ali 1985
Dhiinsoor Maay **ɖẹjji**	Ali 1985
Bay Maay **dheji**	Ali 1985
Daafeed Maay **ɖeji**	Ali 1985
Afgooy Maay **ɖeji**	Ali 1985
Lower Jubba Maay **ɗeji**	Ali 1985
Girirra **ɗeg** ‘snake’	Mekonnen 2015

Table 17. Attestations of the root **#ɗeg-** ‘snake’

This presumed lexical isogloss between Maay **dhejy** /ɗedʒə/ and Girirra **ɗeg** against the rest of Eastern Omo-Tana is interesting. Girirra, spoken in the Oromia region of southern Ethiopia, is one of the most understudied languages of the Horn of Africa, although Mekonnen’s (2015) grammar has greatly advanced our understanding. Because Girirra has always been overlooked in studies on Somali dialects (e.g. Ali 1985; Lamberti 1986), close to nothing has been written about its position within Eastern Omo-Tana. Banti (2005: 809) notes that Girirra seems to have rather peculiar features within the Somali cluster.

Askale (1994: 43) reports **ɗag** ‘snake’ for Girirra, with a different vowel. In Mekonnen (2015), the form **ɗag** is rather found as ‘ear’ (cf. Somali **dheg** ‘ear’). The word for ‘ear’ then is found in Askale (1994: 43) as **dag**, without implosion of the initial. I take the transcriptions by Askale (1994) to be erroneous and follow the more comprehensive work of Mekonnen (2015).

In order to understand the development of the word **dhejy** ‘snake’ in Maay, we must consider the following terms in Standard Somali lexicography:

Eastern Omo-Tana	
Standard Somali	
dhaji ~ dheji ‘to put sth. somewhere; to put sth. on someone’	Puglielli & Mansuur 2012
dhaji ‘a kind of reptile’	
dhajis ~ dhejis ‘old snake; stomach disease with profuse vomiting caused by ingestion of poison’	
(ku) dheji ‘to attach/stick (sth. to sth. else)’	Zorc & Osman 1993
(ku) dhaji ‘to look at someone with envy; to put the evil eye on’	
dhejis ‘the evil eye’	
dhaji ‘to put, to post’	Bashiir Xersi, p.c.
dhajis ‘evil eye’ (< **dhaji**)	
Maay	
dhejy ‘snake’	Mukhtar & Ahmed 2007
dhejiyow ‘to attach, to stick, to clasp’	

Table 18. Set of words with the root **#dheg-/#dhej-** in Standard Somali and Maay

Considering the above set, we first of all notice quite some variation between the two dictionaries of Standard Somali. Crucial is the fact that Puglielli & Mansuur (2012: 210) report the word **dhajis ~ dhejis** as 'old snake', whereas Zorc & Osman (1993: 116) have **dhejis** 'the evil eye' without variation in vowel quality. Fortunately, I was told by Bashiir Xersi (a Somali speaker from Mogadishu) that he knew this word as **dhajis** 'evil eye', and that it is a transparent derivation of the word **dhaji** 'to put, to post' in the sense that the evil eye is 'put on somebody'. It appears that 'evil eye' and 'old snake' are both senses of the same word **dhajis~dhejis**, which is a transparent derivation of the base **dhaji~dheji** 'to put sth. somewhere; to put sth. one someone'. How the meaning of 'old snake' exactly entails from this base meaning is still unclear to me. However, this shows beyond doubt that the Maay word **dhejy** 'snake' ultimately stems from the same root.[31]

This hypothesis contrasts with Ali's (1985: 198) idea about the Maay word ***ɗeji**, which I here reject. In his attempt to reconstruct the prehistory of the Somali peoples, he considers the Maay root ***ɗeji** 'snake' as a loan from West-Rift South Cushitic ***des-** 'snake', along with a couple of other highly dubious cases. The Proto West-Rift form is found in Kießling & Mous (2003: 90) as ***daysu** 'snake', and descends into Iraqw **daysamo ~ dayshimo**, and Alagwa and Burunge **deesu**. The link between the Maay form and the West-Rift form is on phonological grounds highly implausible. The connection is therefore quite unlikely, as are the other three links that Ali (1985: 90) proposes in order to argue for a South Cushitic presence in the pre-Maay homeland.

While the word **ɗeji ~ ɖeji** 'snake' is highly characteristic of Maay, we do not find this item in all sources. Ali (1985) reports **mas** 'snake' for Baydhaba Maay (while Saeed 1982: 41 reports **ɖjj** for this same dialect), and in Smith (2022) and Paster (2019), we find **mə́s** and **mas** for Kenyan Maay. These are all regarded as transfers from Northern Somali (see §2.1.3).

2.1.7 Jiiddu: arwun 'snake'

It is not surprising that the Jiiddu word for 'snake' is unique within Eastern Omo-Tana, as Jiiddu is considered to be "the most divergent of all the Somali dialects" (Tosco 2012: 272), although it can hardly be considered a dialect. The divergence of Jiiddu, especially regarding its lexicon, was already noted by Moreno and Lamberti:

> "Die größten Abweichungen des Jiddu sind in dem Lexikon festzustellen: "La prima cosa che sorprende nel Jiddu é l'alta proporzione di vocaboli estranei agli altri dialetti somali" (Moreno 1951: 99), was meine Aufgabe erschwert hat, Jiddu Lautentsprechung mit Standardsomali festzustellen."
> —Lamberti (1981: 6)

The following forms are reported:

Eastern Omo-Tana	
Jiiddu	
arwun 'snake'	Salim et al. 2024
ʾarwiin 'snake'	Ali 1985
aaruwiin 'snake'	Lamberti 1986
haarəwin 'snake'	Lamberti 1981

Table 19. Jiiddu **arwun** 'snake' in its various attestations

[31] The possibility that the Maay word **dhejy** 'snake' is derived from the same base as the verb **dhejiyow** 'to attack, to stick, to clasp' may find a parallel in the neighbouring Jiiddu language where **buwé** 'puff-adder' may derive from the base **buuw-** 'to snatch, to grab'.

Lamberti (1981: 95; 1986: 315) reports two similar items for 'snake' in Jiddu: **haarəwin** and **aaruwiin**. The word is probably to be identified as **aarəwiin**.[32] The phonological mismatch with Salim et al.'s (2024) form **arwun** is odd, given that Lamberti's research on Jiiddu was carried out in Qoryoley, which is the hometown of the Jiiddu lexicographer Salim Alio Ibro (Neterer 2021: 141). Neterer and Salim (p.c.) do not regard the form **aarəwiin** as "pure" or proper Jiiddu ("Jii"), but rather attribute it to the local Maay variety. However, Ali's (1985) dialect survey showed that Maay characteristically has the word **ɖeji** for 'snake' (see §2.1.6), and a form like **aarəwiin** was never reported for any variety of Maay. Rather, Ali (1985: 299) reports **ʾarwiin** 'snake' for Jiiddu.

There are more differences between the various attestations of Jiiddu. For instance, Lamberti (1981: 94) reports the word **arrab** 'tongue', while Salim et al. (2024) have **arnaw** 'tongue' (cf. Maay **anrab**, Somali **ʕarrab**). The lenition of ***b** into **w** in this position is a characteristic Jiiddu sound change, and it could therefore be the case that **arrab** in Lamberti's Jiiddu is an instance of (Northern) Somali **ʕarrab** 'tongue' in a Jiiddu phonology.

Similarly, the **aarəwiin** forms, as opposed to **arwun**, may be influenced by neighbouring Maay varieties. When we look at the word for 'big' in the data by Ali (1985: 219-232, item #11), it can be seen that the form **wiin** is characteristic of southern Somaloid varieties like Maay, Tunni, Garre, and Boni, while Salim et al.'s (2024) Jiiddu has **wuné** /wunə/ 'big'. In fact, I would propose to analyse the form **arwun** ~ **aarəwiin** 'snake' as a compound in which the second element is **wuné** ~ **wiin** 'big'. This is summarised in the following scheme, with the word for 'tongue' as an additional control:

Salim et al. 2024 Jiiddu (proper)	Lamberti 1981 Jiiddu	Lamberti 1986 Jiiddu	Ali 1985 Jiiddu	Saeed 1982 Maay (Baidoa)
arwun 'snake' **wuné** 'big' **arnaw** 'tongue'	**haarəwin** 'snake' **wiin** 'big' **arrab** 'tongue'	**aaruwiin** 'snake' **wuun** 'big' **arnaw** 'tongue'	**ʾarwiin** 'snake' **wiin** 'big' **arnaw** 'tongue'	**ɖij** 'snake' **wiiŋ** 'big' **anrab** 'tongue'

Table 20. Incongruity across descriptions of Jiiddu

Going back to the analysis of the word for 'snake', it can be conjectured that the compound **arwun** consists of a first element that is to be identified in Jiiddu **aaré aaré** /aarə aarə/ 'spider' with the modifier **wuné** /wunə/ 'big'. Lamberti's (1986: 315; 1981) Jiiddu forms **aaruwiin** and **haarəwiin** 'snake' align with the same logic in Maay, for which we find **aarə aarə** for 'spider' and **wiin** for 'big' (Saeed 1982). The Standard (Northern) Somali cognates are **caaro** /ʕaaro/ 'spider' and **weyn** 'big'.

Although a link between spiders and snakes might seem unusual, we can conjecture that the term **arwun** for 'snake' may have emerged as a euphemistic avoidance of direct reference, instead drawing on the spider's association with danger or venom. Over time, this compound likely lexicalised, contracting into the fixed form **arwun** rather than the transparent descriptive phrase **aaré wuné** 'big spider'. The link between snakes and spiders was also observed in Girirra, another Eastern Omo-Tana language, where the word **dʒaarso** denotes both 'viper' and 'poisonous spider', likely also originating as a transparent euphemistic descriptor, taken from Oromo **jaarsa** 'old man' (see §2.1.5 for a discussion). As

[32] The initial /**h**/ in /**haarəwin**/ transcribed by Lamberti (1981: 95) is taken as an error by Neterer (p.c.). Marcello Lamberti has been said to inaccurately transcribe initial /**h**/ also in his joint work with Roberto Sottile on Wolaytta (Azeb 2002: 80-81; Wakasa 2008: 42). Note also that the Bayso word **abeesa** 'snake' in Haberland & Lamberti (1988) is found with an initial /**h**/ in all other sources. We can note that Italian lacks initial /**h**/ in its phonology.

an external parallel to this, we find in the Arabic Bedouin dialects of Southern Sinai the word **ḥanáš** 'spider' (De Jong 2011: 216) which corresponds to **ḥanaš** 'snake' in Classical Arabic (Lane 1872: 659) and **ḥənš** 'snake' in Moroccan Arabic (Harrell et al. 2004: 245).[33]

Still, the discrepancy between sources is odd. Indeed, as Neterer and Salim (p.c.) have mentioned, the form may be a transfer from a local variety of Maay. However, since there is no data on the local Dhoobey Maay variety of Qoryoley, this cannot be confirmed. Because a proper native Jiiddu ("Jii") form **arwun** also exists, we cannot ignore the possibility that the **aarəwiin**-like forms (as well as the **wiin**-like forms for 'big') are in fact Jiiddu, but only affected in their phonological shape, due to the transparency of the compound and the influence from Maay, in which much of the Jiiddu community is bilingual (Neterer 2021: 85-92).

2.1.8 Jowhar: qoonle 'snake'

Jowhar is a Somali dialect spoken in the city of Jowhar, 80 kilometers north of Mogadishu along the Shebelle river. Ehret & Ali (1984: 206) and Ali (1985: 16) classify the dialect as one of the four coordinate branches of Proto Banaadir-Northern, parallel to the Banaadir dialect cluster, and the Shebelle-Northern dialect cluster, and the Baraawa dialect (see figure 7).

The only data available on this dialect is the 200-wordlist presented in the dialect survey by Ali (1985), which is an expanded version of that presented in Ehret & Ali (1984).

Eastern Omo-Tana	
Jowhar **qoonle** 'snake'	Ali 1985
Northern Somali **qoon** 'wound, lesion'	Zorc & Osman 1993

Table 21. Jowhar 'snake'

In the Jowhar dialect, we uniquely attest **qoonle** as the word for 'snake' (Ali 1985: 304). In the absence of any other information on the Jowhar dialect, we must look to the well-documented and closely related Standard (Northern) Somali language for interpretation. From the perspective of Standard Somali, the form **qoonle** can be transparently analysed as consisting of the noun **qoon** 'wound, lesion; disturbance, annoyance', plus the possessive suffix **-le** 'having' (Zorc & Osman 1993). Words formed by this suffix are numerous and the compounding appears productive and, in many cases, transparent (Saeed 1999: 153; Green 2021: 214). Saeed (1999: 272, 153) gives the examples **beenlé** 'liar' (< **been** 'lie'), **wáranle** 'warrior' (< **wáran** 'spear'), **géelle** 'camel-owner' (< **géel** 'camels'), and in Green (2021: 214) we find **kabbaqáble** 'lukewarm liquid' (< **kábbo** 'sip', **qáb** 'to have'), among others.

Upon consultation, a native speaker of the closely related Northern Somali variety recognised the form **qoonle** as meaning 'one who has an injury' or 'one who has problems'. When told that this word in the Jowhar dialect means 'snake', the consultant responded that it could make sense, in that a snake causes injuries. The compounding semantics seem to be quite free in their interpretation, as the consultant said that **qoonle** may also be said about 'someone who disturbs you', in addition to 'someone who has problems'.

While the analysis of this item is satisfactory, the reality of the word for 'snake' in the Jowhar dialect may be more complex. From the short wordlist presented by Ali (1985), we may not be seeing the full picture. Further research is needed to determine the extent to which the

[33] I thank Hamza Khwaja for kindly bringing this to my attention.

word **qoonle** ‘snake’ is transparent in the Jowhar dialect, and whether there are alternative lexical strategies for making generic reference to ‘snake’. Specifically, one wonders about the meaning of the word **bahal** in Jowhar, which in sister branches Northern Somali and Banaadir mean ‘wild animal’ and ‘snake’, respectively.

2.1.9 Jamaame Banaadir: halak ‘snake’

Another unique form for ‘snake’ is reported for the Banaadir variety spoken in the town of Jamame, in the Lower Juba region of Somalia. In Ali (1985: 303), the only source on this specific variety, we find it as **halak** ‘snake’.

Eastern Omo-Tana	
Jamaame Banaadir	
halak ‘snake’	Ali 1985

Table 22. Jamaame Banaadir **halak** ‘snake’

In the well-documented lexicon of Standard (Northern) Somali, we find two candidates that could link to this word:

Eastern Omo-Tana	
Standard Somali	
halaq ‘reptile, snake’	Zorc & Osman 1993
halako ‘severe harm, damage, bad wound’	Zorc & Osman 1993

Table 23. Potential links to Jamaame Banaadir **halak** ‘snake’

While an obvious link would be the Standard Somali word **halaq** ‘reptile, snake’, the final consonant is an issue. Looking at the other items in Ali's (1985) wordlist of Jamaame Banaadir, it does not appear that the uvular stop **q** was lost or neutralised compared to the Northern Somali dialects. Therefore, it would be impossible phonologically to link Jamaame **halak** ‘snake’ to Standard Somali **halaq** ‘reptile’, unless of course the transcription proves to be inaccurate. Instead, we ought to look for a link in the Somali word **halaag** ‘destruction, annihilation’, which by a process of final devoicing is realised as [halaak], and derives from the verb **halaag-** ‘to destroy, to annihilate’. This, however, is a loan from Arabic and is not expected to undergo such a radical semantic shift. We find as a related form **halako** ‘severe harm, damage, bad wound’, and the verb **halakee** ‘to wound severely, to harm grievously’, although the exact morphological relationship is still unclear to me.

This semantic link with Somali **halaag** or **halako**, if plausible, would be of the same nature of the word **qoonle** ‘snake’ attested in the Jowhar dialect (from **qoon** ‘wound, lesion’, see section §2.1.8), in that it makes reference to a snake’s dangerous and harmful nature.

Another possibility, kindly suggested to me by Prof. Giorgio Banti, is that the original form ***halaq** ‘snake’ has shifted in the Jamaame Banaadir dialect to **halak** as phonological means of taboo avoidance. The phonological likeness with other lexical roots like **halaag** ‘to destroy’ and **halako** ‘severe harm, damage’ may have played a role in this development.

It awaits further research to find out:

1) whether the Jamaame Banaadir form is truly **halak** and not **halaq**;
2) which noun or verb root speakers of the Jamaame Banaadir dialect associate the word **halak** ‘snake’;
3) and whether they consider the derivation to be semantically transparent.

2.1.10 Xamar Banaadir: bahin ‘snake’

I have not been able to find a plausible explanation for this word in the Xamar dialect of Mogadishu. The other Banaadir varieties such as Merka, Shangaani, and Reer Maanyo 2 all have **bahal** as the word for ‘snake’. It seems unthinkable that Xamar **bahin** would in any way relate to this, as no such drastic sound changes should be observed between these mutually intelligible varieties. This question remains open for further research.

2.1.11 Bayso: habessa ‘snake’; Proto Eastern Omo-Tana: *abees- ‘viper’

To conclude this section on the Omo-Tana languages, I discuss Bayso, a geographic and genealogical outlier within the larger Omo-Tana family (figure 6). The consensus holds that Bayso constitutes a distinct branch alongside Eastern and Western Omo-Tana, conveniently termed Northern Omo-Tana (Hayward 1978; Heine 1978: 8-9; Morin 2003). The word for ‘snake’ in Bayso is attested in the following:

Northern Omo-Tana	
Bayso	
habessa ‘snake’	Hayward 1979
abeesa ‘snake’	Haberland & Lamberti 1988
haabésa ‘snake’ (Alge dialect)	Brenzinger 2001
háabesa ‘snake’ (Shigima dialect)	Brenzinger 2001
habessa ‘snake’	Abebe et al. 2015
habeessa ‘snake’	Mohammed 1985
habeessa ‘snake’	Lemmi 2018

Table 24. Bayso attestations of ‘snake’

This root finds a number of obvious cognates in the Eastern Omo-Tana languages, but none in Western Omo-Tana:

Northern Omo-Tana	
Bayso **habessa** ‘snake’	Hayward 1979
Eastern Omo-Tana	
Northern Somali **abeéso** ‘viper’	Lamberti 1986
Jabarti **abéso** ‘snake; poisonous cobra sp.’	Reinisch 1904
Xamar **aweeso** ‘viper’	Lamberti 1986
Ashraaf **aweeso** ‘viper’	Lamberti 1986
Dabarre **eβeesə** ‘snake’ (?)	Lamberti 1980
Dabarre **ebeesə** ‘viper sp.’	Lamberti 1986
Garre **abeesə́** ‘viper’	Lamberti 1986
Garre **abeesə** ‘snake’ (?)	Tosco 1989
Garre **aweeso ~ abeesow** ‘cobra’ (?)	Arvanites 1991 (M. N. Ali, p.c.)
Tunni **abeesa** ‘cobra’ (?)	Arvanites 1991 (M. N. Ali, p.c.)
Maay (Bay) **abeesa** ‘snake’ (?)	Arvanites 1991 (M. N. Ali, p.c.)
Maay (Lower Jubba) **aweesa** ‘worm’	Paster 2006; Paster 2019
Jiddu **aweese** ‘cobra’	Arvanites 1991 (M. N. Ali, p.c.)
Rendille **ebees** ‘puff-adder sp.’	Pillinger & Galboran 1999

Table 25. Omo-Tana cognates to Bayso **habessa** ‘snake’

The data show a clear pattern where the Somali dialects have the root **#abees-** in the meaning ‘viper’. For some varieties, such as Dabarre (Lamberti 1980), Garre (Tosco 1989), Bay Maay (Arvanites 1991), the meaning ‘snake’ is reported, although this is best regarded as an underspecification. This becomes clear when compared with other sources on the same

varieties. Lamberti (1986: 268) reports these forms in the more narrow meaning 'viper', and in Ali (1985), the root #**abees-** for the generic meaning of 'snake' was not attested in a single dialect of the 47 dialects surveyed.

Due to the lack of attestation in the Western Omo-Tana branch, it cannot be said whether the meaning of 'snake' or 'viper' is archaic. The gloss 'viper' probably refers specifically to the puff-adder, a common viper species that inhabits dry lowlands. The Bayso live in a wet, lacustrine ecology where puff-adders are not commonly found. Proto Omo-Tana either had this root in the meaning of 'puff-adder' which would indicate a lowland livelihood, or it existed in the meaning 'snake' and acquired the meaning of 'puff-adder, viper' in Eastern Omo-Tana. The latter hypothesis seems more plausible, also in light of the absence of this root in Western Omo-Tana. For the Western Omo-Tana languages, we can argue for a lexical innovation of the generic word for 'snake'. That means that Bayso has preserved the archaic meaning of this root.

Support for this hypothesis is found in the Highland East Cushitic languages, for which we can reconstruct PHEC ***hamas-** 'snake' (cf. Hudson 1989: 137). See §2.6 for a full discussion of this root.

A corresponding form is also found in Afar, **abeesa**:

Saho-Afar	
Afar	
abeesa (pl. **abeesos**, **abeesas**) '1) viper; 2) snake (in general)'	Morin 2012
abeesa (pl. **abeèsas**, **abeèsos**) 'venomous type of snake'	Parker & Hayward 1985
abesá (pl. **abésis**) 'snake'	Colizza 1887
abesá (pl. **abésis**) '1) wickerwork; 2) snake'	Reinisch 1887
Saho	
abeesa 'type of grass'	Vergari & Vergari 2003

Table 26. Saho-Afar **abeesa**

While we notice some semantic variation across sources, the meaning of 'viper' ~ 'snake' matches perfectly with Somali **abeeso** 'viper'. The link is problematic however, due to the first sense of the word 'wickerwork' reported in Reinisch along with the fact that Saho has **abeesa** as 'type of grass'. These two meanings might match each other, if we assume that this specific type of grass in Saho may be used in wickerwork. But the sense of 'snake' cannot be straightforwardly connected to those. Based on observations elsewhere, we could imagine the word for 'snake' developing from a sense of 'rope', but this development seems far-fetched in the absence of such attestation. Yet, given that this is found even in Bayso for 'snake', as **habessa**, and the fact that Afar closely shares its phonological form as well as its semantics with Somali **abeeso** 'viper' is reason to believe that this may be a borrowing. While there has been no study on the degree of language contact and lexical exchange between Somali and Afar to my knowledge, it does appear that Afar has borrowed quite a number of words from Somali. The Afar word **abeesa** 'venomous type of snake' may be one of those. The fact that this root is not found in the closely related Saho language, which is not in contact with Somali, supports this idea.[34]

[34] In Saho, we do find the word **abeesa** in the meaning 'type of grass' (Vergari & Vergari 2003). It is not clear whether this could possibly belong to the same set of snake-related meanings. The formal match is excellent - the issue lies in linking the semantics.

Alternatively, the meaning of Saho **abeesa** 'type of grass' could be seen as innovative, from an earlier meaning of snake. Here, we can compare a similar relation in Dizi (Omotic; Maji) **ʧʃuɑʒu** 'grass' and **ʧʃuɑʒu** 'snake' (data from Beachy 2005). If these two words bear any relation, the sense of 'grass' must have developed from 'snake' as the latter meaning is widely attested in Omotic for this root. The link cannot be confirmed for Dizi however, since the tones[35] on these words are not transcribed, and no reliable dictionary or other form of lexical analysis exists for the language. Yet, given the potential parallel here, such links may have to be explored further.

2.1.12 Conclusion on Omo-Tana 'snake'

In the foregoing sections, I have highlighted the lexical diversity in the generic words for 'snake' in the Omo-Tana languages. In section §2.1.3, I argued that Northern Somali **mas** 'snake' and Dhaasanac **mas** 'rope' developed from a Proto Omo-Tana root ***mas-** 'snake'. The fact that this root is not retained as 'snake' in any other Omo-Tana language, required us to find supporting evidence that all other words for 'snake' in Omo-Tana are indeed innovations. This appears to be the case, the lexical innovations summarised as follows:

- Dabarre, Garre, and Banaadir have innovated **bahal** 'snake' from a earlier ***bahal-** 'wild animal', as preserved in Northern Somali (§2.1.4). This innovation was shared with Boni which further narrowed down the meaning to **bààhál** 'puff-adder', likely as a result of a chain shift due to the emergence of a new root ***moof-**;
- Boni, Tunni, Baraawa, and Ashraaf share the root ***moof-** 'snake' which I argue finds its origin as a euphemism transfer from Oromo **moofa** 'old, ruined, worn out' (§2.1.5);
- Maay has innovated **ɗeji** 'snake' on the basis of a verb meaning 'to attach, to clasp onto', although the exact formation is unclear (§2.1.6);
- Girirra **ɗeg** 'snake' may relate to the Maay form, but this is hard to say as the language has hitherto escaped the attention of comparative studies;
- Jowhar **qoonle** 'snake' is formed on the basis of **qoon** 'wound, lesion' with the possessive suffix **-le** (§2.1.8);
- Jamaame Banaadir **halak** and Xamar Banaadir **bahin** 'snake' are obscure in their origin, but it is clear that they also constitute innovations (§2.1.9; §2.1.10);
- Jiiddu **arwun** 'snake', I argued, is a lexicalised compound in which the second element is clearly **wuné** 'big' (§2.1.7), the first possibly being a root for 'spider';
- Rendille, Arbore, and Elmolo share the word **tóof** 'snake' which must result from borrowing between these two branches of Omo-Tana. I favour the hypothesis that the innovation is on the side of Rendille where it emerged as a euphemism on the basis of an Eastern Omo-Tana root ***toos-** 'straightness', with the ad-hoc phonological shift of ***s** to **f** being patterned on a familiar Oromo-specific sound-change (§2.1.1);
- Dhaasanac **cár** 'snake' finds cognates in Arbore and Elmolo **cáar** 'leopard' from which we may tentatively reconstruct Proto Western Omo-Tana ***caar-** 'leopard', although the semantic shift to 'snake' remains unprecedented (§2.1.2).

I have also proposed the hypothesis that Proto Omo-Tana ***mas-** 'snake' itself is a semantic innovation, having shifted from a Proto East Cushitic root ***mas-** 'fear, dread', the meaning of which highlights the very reason why this meaning is so susceptible to semantic change.

[35] Dizi is reported to have 3 phonemic tones (Beachy 2005).

2.2 Omo-Tana: ‘python’ and ‘cobra’

Whereas the previous section has focused on the generic word for ‘snake’ in the Omo-Tana languages, the current section follows up on this with a discussion of some remaining terms of interest. In the following, I discuss: the anomalous word **dóbos** ‘python’ in Bayso; a common derivational pattern across Omo-Tana languages in which the word for ‘python’ is derived from a base ‘to break (tr.)’; and, a case of borrowing of the word for ‘cobra’ in Arbore and Dhaasanac from an Eastern Nilotic source.

2.2.1 Bayso: dóbos; Zayse: dóbes ‘python’

The Bayso form **dóbos** ‘python’ does not find any direct cognates in other Cushitic languages. It closely links with the word for ‘python’ in Zayse, however:

Northern Omo-Tana (East Cushitic)	
Bayso	
dóbos (m.) ‘python’	Hayward 1979
dobos ‘python’	Abebe et al. 2015
dobos ‘serpent, large snake’	Lemmi 2018
East Ometo (Omotic)	
Zayse **dóbes** ‘python’	Hayward 1990

Table 27. Bayso **dóbos** ‘python’ and Zayse **dóbes** ‘python’

However, the Zayse word **dóbes** ‘python’ itself is also anomalous within Ometo. The closely related language Zargulla for instance has **dáwe** ‘python’, which corresponds to the Proto Ometo reconstruction ***daw-** ‘python’ (see §3.2). This would suggest that the Zayse word is a loan from Bayso **dóbos**, also given that the Bayso lexicon is relatively far more anomalous within its respective family. A loan from Bayso into Zayse is peculiar, however, as the two languages are not currently in contact nor are they spoken in each other’s vicinity. Besides, Zayse is much more numerous than Bayso (~21.000 vs. ~3500 speakers; Yeshimebet 2017, Sava 2012) which would favour the reverse borrowing scenario, although the past demographics are of course unknown. A full-scale investigation of language contact between Bayso and the neighbouring lacustrine East Ometo languages is needed to understand the flow of lexicon throughout history.

A different word for ‘python’ in Bayso, **d’ud’uufa**, was reported in Haberland & Lamberti (1988), which I discuss in section §2.4.4.

2.2.2 Omo-Tana: ‘python’ and ‘breaking’

The following Omo-Tana forms can all be analysed as derivations of the word for ‘to break’:

Eastern Omo-Tana	
Somali **jebiso** ‘python’	Zorc & Osman 1993
Maay **jibisə** ‘python’	Saeed 1982
Jiiddu **jhawasté** ‘python’	Salim et al. 2024
Rendille **khorojébsi** ‘python’	Pillinger & Galboran 1999
Western Omo-Tana	
Arbore **ḳorḳessá** ‘python’	Hayward 1984

Table 28. Words for ‘python’ in Omo-Tana derived from ‘to break (tr.)’

Prof. Giorgio Banti (p.c.) regards the Somali form **jebíso** as a feminine agent noun 'the one (f.) who breaks (tr.), the breaker (f.)', derived from the base **jebi** 'to break (tr.)' with the feminine agent suffix **-íso**. The same analysis is given for Rendille in Pillinger & Galboran (1999: 193):

> Rendille: **khorojébsi** 'python'
> "Refers to a very large snake that breaks bushes when it moves, and attacks people and animals, killing by crushing them. [Analysis: **khóro+jébsi**, 'firewood-breaker']"
> —Pillinger & Galboran (1993: 193)

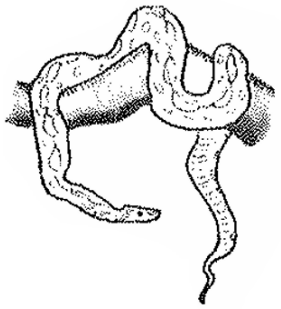
Identical to the Rendille formation is Arbore **ḳorḳessá** 'python', which can be analysed as a compound consisting of **ḳor** 'tree' ~ **ḳór** 'wood' and **ḳebis-** 'to break (tr.)'. The final two syllables must have become shortened from ***ḳorḳebisá** to **ḳorḳessá** likely as a result of a lexicalisation process. My Arbore informant suggested a link with the verb **ḳebis-** 'to break (tr.)' when given the word **ḳorḳessá**, although he indicated that the relation was not fully clear to him.

In Jiiddu, the word **jhawasté** 'python' does not look transparently linked to 'to break' for which the root is **jhow-**, transitive **jhowsh-** (Salim et al. 2024). The exact morphology by which the noun is historically derived is not clear, as no adequate descriptions of this divergent Omo-Tana language exist. A similar case is Maay which has **jibisə** 'python', to **jeb-** 'to break'.

Given the widespread distribution of the link between 'python' and 'breaking' in Omo-Tana, it seems reasonable to reconstruct this derivation to Proto Omo-Tana. This means that the derivation must have stayed transparent and productive throughout most of Omo-Tana history. An alternative explanation could be that Arbore calqued the compound **ḳorḳessá** 'python' from Rendille **khorojébsi** 'python' with which it has been in contact (cf. also Arbore **tóof** 'snake' and Rendille **tóof** 'snake'). This would mean that the development from the verb 'to break' is only an East Omo-Tana innovation.

A semantic parallel is found in Gurage **aṭaṭ səbər** 'a kind of poisonous snake', interpreted by Leslau (1979: 110, 533) as literally meaning 'that breaks the **aṭaṭ** (a kind of bush)'.

The productivity of the Rendille compound **khorojébsi** 'python' is reflected in the fact that in Fleming (1964: 69) the word **horomʌrsi** 'python' is instead recorded. While the first element of the compound is identical, the second element **mʌrsi** seems to be a derivation of **mara** 'to go round, to circle, to revolve', of the same kind that derives **jébsi** from **jeba** 'to break (intr.)'. This compound likely reflects the python's characteristic behavior of coiling itself around tree branches (see the illustration by Leus & Salvadori 2006: 367). It would not be surprising to find other transparent expressions that refer to the python in languages of the Horn of Africa.



2.2.3 Arbore: lóobal ‘cobra’; Dhaasanac: lúòbal

I regard Arbore **lóobal** ‘cobra’ and Dhaasanac **lúòbal** ‘cobra’ as loans from Turkana. We attest the following:

Western Omo-Tana	
Arbore **lóobal** ‘cobra’	(own data)
Dhaasanac	
lúòbal ‘cobra’	Ness 2023
luobal ‘python’ *[=‘cobra’]	Tosco 2001
Eastern Nilotic	
Turkana **loupuol** ‘cobra’	Barrett 1990
Karimojong **lo-upal** ‘cobra’	Bader 2008
Kuliak	
Nyang’i **lòúpʷàl** ‘cobra’	Sam Beer, p.c.

Table 29. External links to Arbore **lóobal** and Dhaasanac **lúòbal** ‘cobra’

The loan status from Nilotic is clear given the presence of the word in Nyang’i, which is in contact with Karimojong far on the other side of the vast Teso-Turkana-Karimojong speaking area. The best evidence is found internally in the TTK cluster in the fact that the element **-upal**/**-upuol** can be interpreted as the word for ‘shield’. Bader (2008: 50) indeed recognises **lo-** as the masculine prefix separate from the stem **-upal**. Such analysis is not given for Turakana in Barrett (1990: 43). In Turkana, we find ‘shield’ as **(a-nga-)upwel** and as **(a-)ùpal** ‘shield’ in Karimojong. The characteristic “hood” of the cobra makes the semantic derivation obvious. Although, the phonological difference in Turkana **(lo-)upuol** ‘cobra’ and **-upwel** ‘shield’ suggests that the former has lexicalised and is no longer transparent. The adaptation of Eastern Nilotic /**p**/ into Dhaasanac and Arbore as /**b**/ is regular given that Dhaasanac lacks /**p**/ in its phonemic inventory and that it is a marginal phoneme in Arbore. We can also observe that Arbore has borrowed /**p**/ as /**b**/ in other cases, such as in the word **bool-an** ‘cloud’, most likely from a Western Nilotic source (cf. Proto WN ***pool-** ‘cloud’ in Dimmendaal 1988: 35) or through Hamar **poolo** ‘cloud’ (Van Ravenhorst 2024).

I take the gloss **luobal** ‘python’ as found in Tosco (2001: 516) to be a lexicographic error, against Ness’ (2023) **lúòbal** ‘cobra’. It is clear that the word originates in Eastern Nilotic from a basis of ‘shield’—a conceptual link that can only apply to cobras. Strangely, Tosco (2001: 518) lists another word **mórti** also in the meaning of ‘python’, without elaboration on their semantic difference. This is the same word for ‘python’ that we find in Ness (2023) as **mórte**.

2.3 Saho-Afar

Saho and Afar are two closely related languages within the East Cushitic language family. Both languages comprise multiple dialects and are thought to form a dialect continuum (Banti & Vergari 2010: 468). The area where Afar (**ʕafar-áf**) is spoken stretches from the Afar Region in northeastern Ethiopia into Djibouti and the Southern Red Sea Region of Eritrea. It is bordered on the northwest by Saho (**saahót waaní**), which is spoken in northeastern Tigray (where it is called Irob Saho) in Ethiopia and the central part of Eritrea up to the Red Sea coast.

2.3.1 Saho-Afar: *aroora 'snake'

In Saho and Afar we find a root which we can reconstruct to ***aroora** 'snake'. It is attested in the following:

Saho–Afar	
Saho	
arōrā́ ~ arūrā́ (pl. **árōr**) 'snake'	Reinisch 1890
ʔarorá́ 'snake, python'	Conti Rossini 1913
ʕaroora (pl. **ʕaror**) 'snake'	Vergari & Vergari 2003
ʔaroorâ 'snake'	Esayas 2015
áror (sg. **aroorá**) 'viper (coll.)'	Morin 2012
Afar	
áror (sg.f. **aroorá**) 'snake (general)'	Morin 2012
arūrā́ ~ arōrā́ (pl. **árūr**) 'snake'	Reinisch 1887
arōrā́ ~ arūrā́ (pl. **árur**) 'snake'	Colizza 1887
áror (sg. **aroorá**) 'snake (coll.)'	Morin 2012

Table 30. Potential cognates to Saho ***aroora** 'snake'

Only in the Afar dictionary by Parker & Hayward (1985) do we not find this root.

The presence of the pharyngeal in Saho **ʕaroora** appears to be secondary, since Afar would have retained any pharyngeal consonants from an earlier stage of East Cushitic. We can also note some variation between sources. Only in Vergari & Vergari (2003) and Esayas (2015: 298, 340) a pharyngeal is transcribed.[36]

In the entry on Afar **áror** 'snake', Morin (2012: 124) points to the verb **ar** 'to bite' as a source. This link may have to be considered doubtful, since there appear to be no known regular derivational pathways that would explain the formal development into **áror** from this root.

Besides, the fact that we find a fairly unquestionable link in Aasax **araroo-k** 'snake' ~ **ʔaŕòr̥ː-kʰ** 'python' suggests that this root is much older than the common ancestor of Saho and Afar. The isolated presence in Aasax within the South Cushtic family is tantalising, though, given the great genealogical and geographic distance to Saho-Afar:

South Cushitic	
Aasax	
araroo-k 'snake'	Mous, n.d.
ʔáŕòr̥ːkʰ 'python'	Winter 1973

[36] In Esayas (2015: 18, 26), the epiglottal stop /ʔ/ is also described as a pharyngeal plosive and corresponds with what has been described in earlier literature as the voiced pharyngeal fricative /ʕ/. However, in one example in this source, on page 111, no initial consonant is transcribed: **aroorâ** 'snake'. Either this is a transcription error, or it shows that there is variation within Saho regarding the presence of an initial pharyngeal in this word.

Proto West-Rift ***haraariyooda*** (?) 'mythological giant snake'	Kießling & Mous 2003
<u>Southern Nilotic</u>	
Datooga **àràrdʒó:d** 'a large snake that is said to have eaten many Asimjeeg when they were in Someega'	Griscom 2019
<u>Western Omo-Tana</u>	
Arbore **garóora** 'poisonous snake sp.' (?)	(own data)

Table 31. Potential cognates to Saho ***aroora*** 'snake'

It begs the question how it is possible that this root survived in precisely these two language groups, and is not found in the remainder of their respective families. A scenario of prehistoric language contact could be considered, yet seems unlikely at a distance of 2000 kilometers. If indeed this is a result of contact, it would perhaps have taken place at an earlier linguistic stage. However, if contact is at play here, we would expect more lexical transfers alongside this word which so far has not been investigated. There is a good possibility that within South Cushitic, the Aasax item links to Proto West-Rift ***haraariyooda*** 'mythological giant snake', as reflected in Iraqw **haraariyóo** and Gorwaa **haraariyooda**. Kießling & Mous (2003: 132) relate this root to Datooga, where we find **àràrdʒó:d**, saying that it probably originates there. However, given the wide range of attestations in Cushitic, the reverse could be true as well, especially given its absence elsewhere in Nilotic. The historical interpretation relies on the analysis of the ending **-iyoo(da)** in West-Rift and **-dʒó:d** in Datooga. If one of these turns out to be analysable as a (fossilised) morpheme, it would give a clue about the direction of transfer. All in all, the link between these items appears quite convincing, but the historical scenario remains puzzling. For a discussion on the position of Aasax within South Cushitic, see Kruijsdijk (2024).

2.3.2 Saho-Afar: *ala ‘wild animal’

The following set of forms in Saho-Afar present us with an interesting case of semantic variation. Both in Saho and Afar, some remarkable variation is observed across sources. This may be due to dialectal differences, differences in lexicographic choices, and diachronic change, or a combination of these factors.

Saho-Afar	
Northern Saho	
álā ‘1) wild animal; 2) snake; 3) tapeworm’ 1) **alūlā́** (pl.) ‘wild animals’ 2) **ā́lāl, ál-it** (pl.) ‘snakes’ 3) **ā́lāl, ál-it** (pl.) ‘tapeworms’	Reinisch 1890
ʾalā́ (pl. **alūlā́, allūlā́**) ‘wild animal’	Conti Rossini 1913
alā́ (pl. **alìtti**) ‘worm; intestinal worm, tapeworm’ **asʾalā́** ‘red snake (viper sp.)’ **daťalā** ‘black snake (viper sp.)’	Conti Rossini 1913
alluula ‘wild animal(s), beast(s)’ **alluulatto** (sgtv.) ‘wild animal, beast’	Vergari & Vergari 2003
allula ‘animal’	Welmers 1952
Southern Saho (Irob)	
alûula ‘hyena’	Esayas 2015
ʔalá ‘tapeworm’ **ʔalluula** ‘wild animal, beast’	Tsegay & Mulugeta 2015
Afar	
alā (pl. **alūlā́**) ‘1) wild animal; 2) snake’ [Northern]	Reinisch 1887
àla (pl. **alluwwa**) ‘wild animal’	Parker & Hayward 1985
ála ‘animal (wild beast); enemy [...]’ (pl. **alwá, aluwwé**) [Southern dial.] (pl. **alluwwá, alluulá**) [Northern dial.]	Morin 2012
ála ‘animal’	Kamil 2015
alâ ‘animal’ **ala** ‘reptile’ **ali** ‘beast’ **allùleh** ‘leech’	Capomazza 1907
allulle ‘hookworm parasite’	Parker & Hayward 1985

Table 32. Reflexes of the root ***ala** ‘wild animal’ in Saho-Afar

In Reinisch (1890: 25), the oldest reliable source we have for Saho, the word **álā** is reported with three polysemous senses: ‘wild animal’, ‘snake’ and ‘intestinal worm’. Reinisch crucially makes note of the fact that the first sense of the word has a plural form different from the second and third one, **alūlā́** ‘wild animals’ vs. **ā́lāl** ~ **ál-it** ‘snakes; intestinal worms’. Welmers (1952: 160) analyses **-it** as a plural suffix that occurs on forms that are masculine - which is indeed the case for **álā**. The formation **ā́lāl** is the result of a different pluralisation process which involves the reduplication of the stem-final consonant which is added after the final vowel (Esayas 2015: 90). The semantic difference between these is still unclear. The data by Conti Rossini (1913: 188) match Reinisch’s, although he reports the words as separate entries: **ʾalā́** ‘wild animal’ and **alā́** ‘worm; intestinal worm; tapeworm’. As the glottal stop is not

contrastive word-initially, these forms may in fact be better analysed as a single lexeme. For the latter, the plural **alìtti** is given, which I take to be a variant of Reinisch's **álit**. While Conti Rossini (1913) does not explicitly give the meaning 'snake' for **alǻ** 'worm; intestinal worm; tapeworm', he does list the compounds **asʾalǻ** 'red snake (viper sp.)' and **datʾalā** 'black snake (viper sp.)'.

The plural form **alūlǻ** 'wild animals' reported by both Reinisch and Conti Rossini is morphologically odd. There is no known pluralisation pattern that could explain this form, although the fact that the stem-final **l** is copied is reminiscent of the reduplication pattern (see Bliese 1977: 297). There appear to be no parallel cases that show a plural formation of this kind.

What is peculiar is that subsequent sources on Saho do not report the stem **alluula** as forming a paradigm with **alá**. Rather, in Vergari & Vergari (2003), Welmer (1952), and Tsegay & Mulugeta (2015) we find the stem **alluula** glossed as simply as 'wild animal', without explicit mention of plural semantics. Only the gloss 'wild animal(s)' in Vergari & Vergari (2003) indicates that this form is rather general or non-committal in number. For the singular, they give the form **alluulatto** 'wild animal, beast' which is a derived singulative in **-tto** (Banti & Vergari 2005: 8).

We thus observe a marked paradigm shift between the earliest data collected by Reinisch (1890) and Conti Rossini (1913) on the one hand, and Vergari & Vergari (2003) and Tsegay & Mulugeta (2015) on the other, where **alluula** 'wild animal(s)' has disconnected from its original singular base form **alá** 'wild animal; snake; tapeworm' and acquired a general number interpretation. However, still too little is known about the current Saho paradigm for this root, and how it behaves in terms of gender and number. It is also interesting to note that Esayas (2015: 314) glosses **aluulâ** as 'hyena', although this may simply be a contextual translation, with 'wild animal' as its core lexical meaning.[37]

This observed paradigm shift also begs the question as to what the old singular stem **álā** 'wild animal; snake; tapeworm' (as in Reinisch 1890) has come to mean in recent sources. Only in Tsegay & Mulugeta (2015) do we find the contemporary reflex of the root: **alá** 'tapeworm' (in Irob Saho). This suggests that the root lost its primary sense(s) and continued as 'tapeworm'. The dictionary by Vergari and Vergari (2003) unfortunately does not report a word for 'tapeworm', though we would expect **ala**. The form **ala** 'goat(s)' attested in modern sources such (Vergari & Vergari 2003; Esayas 2015; Tsegay & Mulugeta 2015) is not to be taken as related to the paradigm in question, as this form was already reported in Reinisch (1890) and Conti Rossini (1913) as a separate lexeme. Gramatically, they are also distinct: **ala** 'goat(s)' is grammatically feminine, while **ala** 'wild animal' is masculine. It could be the case however that **ala** 'goat(s)' ultimately derives from the same root as 'wild animal'. It has formed a paradigm with **laħ** 'goat (sg.)' as its suppletive plural (Esayas 2015: 91). The Saho form **ala** 'goats' (and related meanings) has no apparent Afar cognate, nor do we find cognates anywhere else in East Cushitic.[38] This remains up for further investigation.

As for Afar, it is interesting to observe a similar paradigm shift for a cognate root. The point of departure is Reinisch (1887), who lists the Afar word as **alā** 'wild animal; snake' with **alūlā´** as the plural (similar to Reinisch's Saho paradigm **álā** (sg.), **alūlā´** (pl.)). Comparing that to Parker & Hayward (1985), however, we find that **àla** 'wild animal' rather has the plural form

[37] In Esayas (2015), we most frequently observe the word **yangúla** for 'hyena', which matches with Vergari & Vergari's (2003) **yangula** 'hyena'. The word **aluulâ** is only mentioned in this one instance on page 314.
[38] I see no reason to consider Proto West-Rift ***'aaráa** 'goats' a cognate.

alluwwa. What Reinisch (1887) listed as the plural **alūlā´** 'wild animals', we find in Parker & Hayward (1985: 39) as **allulle** 'hookworm parasite'. We find the same item in Capomazza (1907: 109) as **allùleh** 'bloodsucker'.[39] The fact that this early source reports a similar meaning for this item, suggests that Capomazza (1907) and Parker & Hayward (1985) report on the same dialect or dialect group, and that the dialect which Reinisch (1887) described is divergent from these (and perhaps closer to Saho). Morin (2012) is the most comprehensive lexicographic source on Afar to date and reports valuable information on dialectal differences. He notes that **ála** 'animal (wild beast)' has the plural form **alwá** or **aluwwé** in the southern dialect or Afar, and **alluwwá** or **alluulá** in the northern dialect. The latter form of course matches the contemporary Saho word **alluula** 'wild animal(s), beast(s)'. Suffixation of **-wa** as in **alwá** or **aluwwá** is a common means of plural formation for masculine noun roots ending in a consonant (Parker & Hayward 1985: 230). The form **aluwwá** is slightly odd, however, in that the suffix is **-uwwa**. This specific plural formation has not been attested in for other nominal roots.

Note that Capomazza (1907: 108) also reports **ala** 'reptile' besides **alâ** 'animal'. The question is whether these words are indeed phonologically distinct. Unfortunately, Parker & Hayward (1985) do not list a word for 'reptile'.[40]

The polysemous nature of the root **ala** 'wild animal' becomes apparent when we consider the compounds it appears in:

Saho-Afar	
Afar	
bagì-ala 'ascaris, roundworm'	Parker & Hayward 1985
bagì-alluwwa (pl.)	
bagaala 'intestinal worm'	Morin 2012
bagalluwwá (pl.) [North]	
bagalwá (pl.) [South]	
(lit. 'belly animal')	
baaxòh-ala 'snake'	Parker & Hayward 1985
baaxoh-ali 'snake'	Morin 2012
(lit. 'ground animal')	

Table 33. Compounds involving the word **ala** 'wild animal'

When combined with the noun **bagu** 'belly, stomach', it means 'intestinal worm', and with **baaxo** /baaɖo/ 'ground, land' it means 'snake'. It is important to note that such readings only arise from compounds and that we can assume 'wild animal' as its core lexical meaning. This is also evidenced by the fact that for 'intestinal worm' the compounds **bagaabeesa** and **bagi-warru** are also attested, in which the second elements are identified respectively as **abeesa** 'viper' and **warru** 'snake' (Morin 2012: 206). A typological overview of the polysemous nature of such words is discussed in section §1.4.3.

The following scheme summarises the potential development of the root ***ala** in Saho-Afar. Note however that the precise semantic representation at the proto level is extremely hard to pinpoint, especially with regards to the various plural formations. Stage 3 represents the furthest semantic development attested so far.

[39] In Morin (2012), we do not find the root **alluulá** with the meaning 'intestinal worm', only as the plural 'wild animals' in the northern dialect of Afar.
[40] It appears that a generic word for 'reptile' is not commonly lexified in the languages under survey, and would thus be expressed by other means, e.g. hypernymy or a periphrastic construction.

<table>
<tr><td>Stage 1</td><td colspan="4">Proto Saho-Afar
***ala** ‘wild animal; snake; intestinal worm’
(pl. **aluula**; perhaps other plurals for the secondary senses)</td></tr>
<tr><td>Stage 2</td><td colspan="2">Early Saho
ala ‘wild animal; snake; intestinal worm’
(pl. **aluula** ~ **alluula** ‘wild animals’)
(pl. **alal**, **alit** ‘snakes; int. worms’)</td><td colspan="2">Early Afar
ala ‘wild animal; snake; intestinal worm’
(pl. **aluula** ~ **alluula**)</td></tr>
<tr><td>Stage 3</td><td>S. Saho (Irob)
ala ‘tapeworm’ [= intestinal worm?]</td><td>N. Saho & S. Saho
aluula ~ **alluula** ‘wild animal(s)’
(sg. **alluulatto**)</td><td>Afar
ala ‘wild animal’
(pl. **alwa**, **alluwwa**)</td><td>Afar
alluulle ‘intestinal worm’</td></tr>
</table>
Table 34. Potential development of the root ***ala** ‘wild animal’ in Saho-Afar.

2.3.3 Afar: abeesa ‘viper; snake’

The Afar word **abeesa** ‘viper; snake (in general)’ has been discussed in section §2.1.11, in the context of Bayso **habessa** ‘snake’ and Somali **abeeso** ‘viper’.

2.3.4 Afar: warru ‘snake’

The Afar word **warru** ‘snake’ will be discussed in section §2.6, in the context of Highland East Cushitic ***warr-** ‘python’.

2.4 Central East Cushitic

Previously termed "Oromoid", the Central branch of East Cushitic is a low-level grouping that comprises the Oromo dialects as one unit and the Sagan languages (previously "Konsoid") as the other.[41] These units consist of the following individual varieties (Black 1975: 293; Heine 1981: 15; see also Black 1974; Gragg 1976; Stroomer 1987; Kebede 2012):

Central East Cushitic

Sagan

- Mosiye (/Bussa /Mosittacha)
- Mashole (/Mashile)
- Dhirayta (/Gidole /Diraasha)
- Kussummiya (/Gato)
- Konso (Faasha, Karatte, Tuuro, Xolme)

Oromo

- Ethiopian Oromo (Wollega, Mecha, Tulema, Wollo)
- Central Oromo (Borana, Gabra, Ajuran, Sakuye)
- Tana-River Oromo (Orma, Munyo, Waata)

2.4.1 Proto Central EC: *maagaa 'snake'

Across the languages of the Sagan group, we find the word **maaka** for 'snake', while in all Oromo dialects the generic word for 'snake' is **bofa**. A common innovation of the Sagan languages is the loss of voicing contrast, which was preserved in Oromo. Hence, Oromo **maagaa** 'intestinal worm' is the regular cognate to the Sagan word:

Central East Cushitic	
Konso **maakaa** 'snake'	Ongaye 2013
Dhirayta **máák-a** 'snake'	Black 1973
Mosiye **maaka** 'snake'	Harlow 2016
Kussummiya **maaka** 'snake'	Wondwosen 2023
Borana Oromo **maagaa** 'intestinal worms'	Leus & Salvadori 2006
Wollega Oromo **maagaa** 'ascaris (roundworm)'	Gragg 1982
Orma Oromo **maagā** 'a general word for a large, full grown snake'	Hoskins 2025

Table 35. The root #**maagaa** in Central East Cushitic

Based on the recurring observations made in this study, the semantic development from 'snake' to 'intestinal worm' is unidirectional. The Sagan languages preserved the original meaning of the word that we can reconstruct for Proto Central East Cushitic. The only Oromo dialect that is semantically divergent is Orma, for which we find **maagā** 'a general word for a large, full grown snake'. This item proves crucial for our understanding of the internal genealogical classification of the Oromo dialects. The semantics found in Orma can only be a retention of the original meaning which is closely shared with the Sagan group. Therefore, Orma must be regarded as the first split-off against all other Oromo dialects which uniformly share the semantic innovation of 'intestinal worm'.

In Gedeo and Bayso, both in heavy contact with Oromo, we find **maagaa** 'intestinal worm' as a loan. We also find it in the Omotic language Haro which is spoken along with Bayso on

[41] This new nomenclature follows Sosal (forthcoming). The Sagan group is named after the Sagan River which flows through the area.

Gidicho Island in Lake Abaya, and thus it may be that this item was loaned through Bayso, if not directly from Oromo:

Highland East Cushitic	
Gedeo **maagaa** 'intestinal roundworm'	Hudson 1989
Northern Omo-Tana	
Bayso **maagaa** 'hookworm, intestinal worm'	Abebe et al. 2015
East-Ometo (Omotic)	
Haro **maaga** 'ascaris'	Tsegay et al. 2018

Table 36. Loans from Oromo **maagaa** 'intestinal worm'

A most interesting find is the word **māg** 'snake sp.' in She (Shenon), a North Omotic language of the Gimira dialect cluster which also includes Bench and Mer, spoken in southwestern Ethiopia:

Gimira (North Omotic)	
She **māg** 'snake sp.'	Conti Rossini 1925

Table 37. Potential correspondence in She (Omotic)

Because this item in She does not find any cognates in the rest of Omotic, it is a likely candidate for borrowing, although this cannot be ascertained due to the poor state of lexical documentation. However, there are some problems. First, the phonological form indicates a close match with Oromo, but since all Ethiopian Oromo dialects have the meaning 'intestinal worm' this option is ruled out.[42] Contact with Sagan languages is unimaginable, as these languages are spoken some 300 kilometers away from the She area and do not exert much linguistic influence beyond the area where they are spoken. Either this could be regarded as a loan from an earlier stage of Central East Cushitic, or it is simply a coincidence. Since the languages are currently spoken so far apart and because little is known about the time and place in which earlier stages of these languages were spoken, not much more can be said about a possible historical scenario without being overly speculative. Moreover, one must always take caution when consulting early sources like Conti Rossini's (1925) work. In his vocabulary, it can also be noted that the word for 'snake' is reported as **mogād** which is also an anomalous form compared to the rest of Omotic. Tizazu (2010: 43) instead reports the She word for 'snake' as **ɛoɛ 3** which aligns with the common North Omotic root (see section §3.1).

Looking further, we find the item ***makaa** 'beast, wild animal' in Proto West-Rift South Cushitic, which Kießling & Mous (2003: 199) compare to Konso **maakaa** 'snake'. Ehret (1980: 155) reconstructs ***maak-** 'game animal' for Proto South Cushitic, also based on Aasax **magat** 'game animal':

South Cushitic	
Proto South Cushitic ***maak-** 'game animal'	Ehret 1980
Proto West-Rift ***makaa** 'beast, wild animal'	Kießling & Mous 2003

Table 38. Potential correspondence in South Cushitic

[42] Note that the majority of basic words in the Bench (but this also goes for Mer and She) are monosyllabic (Rapold 2006: 96).

The meanings 'snake' and 'wild animal' are indeed strongly linked, with the former cross-linguistically developing from the latter. Therefore, if these items are cognate at a higher level of Cushitic, it would mean that South Cushitic preserved the original meaning. In terms of historical phonology, however, still little is understood beyond the levels of Proto South and Proto East Cushitic. Linking these items remains a tentative hypothesis, as no formal evidence can be given yet.

Lastly, a link with Sandawe **mãgãã** 'a type of snake'[43] may be considered, although little can be said about it. Since Sandawe has been in close contact with the South Cushitic languages, a link with Proto West-Rift ***makaa*** 'wild animal' seems most likely, although it is not clear how the nasality in Sandawe relates to the West-Rift form. Besides, it requires posing a semantic shift specific to Sandawe. This would mean the 'snake' semantics shared with Proto Central East Cushitic are purely coincidental. Alternatively, of course, it could be a native Sandawe root.

Since Proto Central East Cushitic ***maag-*** 'snake' cannot be convincingly linked with Proto West Rift ***makaa*** 'game animal', I would like to offer an alternative option. In light of our earlier hypothesis that Somali **mas** 'snake' may derive from Proto East Cushitic ***mas-*** 'fear', I would like to pose a similar development for ***maag-*** 'snake', being possibly cognate with Somali **mąag** 'to avoid something out of fear' or **maag** 'provocation':

Proto Central East Cushitic	
maag- 'snake'	(own reconstruction)
Omo-Tana	
Somali	
maag 'provocation, intentional offense'	Zorc & Osman 1993
maag 'act of aggression; a desire'	Puglielli & Mansuur 2012
mag 'attack; to attack'	De Larajasse 1897
mąag 'to avoid something out of fear'	Puglielli & Mansuur 2012
maag '1) to stop suddenly; to hesitate (out of fear ~ suspicion); 2) keeping one's distance from something, setting a limit'	Zorc & Osman 1993

Table 39. Potential cognates to Proto Central EC ***maag-*** 'snake'

Lexical documentation is at present too scarce to reconstruct this root within Omo-Tana or at any level higher than Central East Cushitic.

[43] Ten Raa (2012: 85) adds: "It is poisonous, but does not bite; it stays in big caves. Also, an all-devouring monster in mythology."

2.4.2 Proto Central EC: *baf- ‘python’

Between the Oromo and Sagan branches of Central East Cushitic, we observe a clear semantic split where the Oromo dialects have a root ***bof-** as the generic word for ‘snake’ and the Sagan languages having ***baf-** more specifically meaning ‘python’.[44]

Central East Cushitic	
Borana Oromo **bofa** ‘snake’[45]	Stroomer 1995
Orma Oromo **bofā** ‘snake’	Stroomer 1987
Konso **pofa** ‘python’	Black & Shako 1973
Dhirayta **páf** ‘python’	Black 1973
Mosiye **fáfa ~ páfa** ‘python’	Harlow 2016

Table 40. Proto Central EC: ***baf-** ‘python’

We can reconstruct the vowel ***a** for this root based on the observation that rounding ***a → o** is a common sound change in Oromo in the presence of labial consonants. The same is seen in the Oromo word **sob-** ‘to lie’ < PEC ***sab-** ‘to deceive’ (Sasse 1982: 164), Oromo **boru** ‘tomorrow’ < PEC ***bar-** ‘dawn, morning, tomorrow’ (Sasse 1982: 34), and Oromo **obbol-eesa** ‘brother’ < PEC ***ʔabb-u-l-ay-** (Sasse 1982: 22). For Konso, however, the presence of the vowel **o** in **pofa** ‘python’ is unexpected, as we find no such vowel shift elsewhere in the lexicon. To regard Konso **pofa** ‘python’ as a borrowing from Oromo is an option, but given the semantic mismatch it is not quite convincing.

I propose to reconstruct Proto Central East Cushitic ***baf-** in the meaning of ‘python’, as in the previous section I have shown that ***maag-** can be reconstructed as the generic word for ‘snake’. Therefore, we can pose a semantic narrowing in Oromo from ‘python’ to ‘snake’ for this root.

In the neighbouring East Cushitic Dullay languages, we find the same root ***baf-** ‘python’:

Dullay	
Tsamay **baf-ko** ‘python’	Savà 2005
Gollango **paf-kó** ‘python’	Amborn et al. 1980
Dobase **paf-kó** ‘python’	Amborn et al. 1980

Table 41. Dullay ***baf-** ‘python’

There are two possible explanations for the presence of this root in Dullay. The first is one of shared inheritance from an earlier stage of East Cushitic. Both Proto Dullay ***baf-** ‘python’ and Proto Sagan ***baf-** ‘python’ could perfectly reflect a Proto East Cushitic root ***baf-** ‘python’. However, the possibility of shared inheritance is obscured by the fact that these two groups have linguistically converged considerably over the past centuries (Black 1975; Sasse 1986; Tosco 2021: 33-35). While the linguistic exchange seems to have gone in both directions, in this case (if we accept borrowing) the transfer has likely entered from Sagan into Dullay, given the presence of an Oromo cognate. The borrowing then must have taken place at the Proto Dullay level since the word is also found in Tsamay, the most divergent Dullay member and peripheral to the Dullay-Sagan convergence zone. This also reinforces the idea that Konso **pofa** is a later development from Proto Sagan ***baf-** ‘python’. Still, I

[44] I choose to reconstruct ***baf-** rather than ***paf-** for the Sagan languages since the loss of voicing opposition can be regarded as a later areal development rather than a common innovation at the Proto Sagan level.

[45] The name **bofa** was given to a new genus of snake identified by Tiutenko et al. (2022). The Oromo name was chosen for Bofa erlangeri (Ethiopian house snake ~ forest snake) given its known range lies in much of the area where Oromo is spoken.

currently cannot draw a conclusion about whether the root ***baf-*** is shared by inheritance or early contact.

In more distant East Cushitic languages, as well as Omotic Dizi, we find the same root:

Highland East Cushitic	
Burji **bófi** 'python'	Sasse 1982
Gedeo **bofa** 'snake'	Wedekind 2008
Western Omo-Tana	
Dhaasanac **bóf** 'viper'	Tosco 2001
Maji (Omotic)	
Dizi **bofi** 'venomous snake'	Beachy 2005

Table 42. Correspondences to Oromo **bofa** 'snake'

I will not regard the Dhaasanac, Burji and Gedeo words as inherited cognates to the root ***baf-*** 'python' posited for Proto Central East Cushitic. The Burji word can either be explained as a loan from Konso **pofa** 'python' or from Oromo **bofa** 'snake', both of which languages Burji is or has been in considerable contact with (Sasse 1982; Sasse 1986). Sasse (1982: 38) claims Burji **bóf-i** to be a loan from Oromo **bofa** 'snake', probably based on phonological arguments. However, in my view a loan from Konso **pofa** 'python' is perhaps more likely. Indeed, semantically it is a closer fit, but phonologically it also matches. The initial **p-** in Konso is a result of the historical loss of voicing contrast. But, this has not resulted in a merger, since Konso did not previously have a **p** phoneme. Because Burji does not have a **p** phoneme, it is likely that Konso **p** would be adapted into Burji as **b**, perhaps even more so if speakers had basic knowledge of Konso in which [p] and [b] clearly are the same phoneme.

The Gedeo word, on the other hand, is a clear loan from Oromo **bofa** 'snake', being identical in form and meaning. This item is one among many Oromo loans into Gedeo.

Dhaasanac **bóf** 'viper' must be a loan from Oromo **bofa** 'snake'. Semantically, the transfer is highly plausible given that poisonous snakes like vipers are the primary non-specific referent of generic words meaning 'snake' (rather than the more discernible and non-poisonous pythons).[46] The transfer is also likely given the contact situation between Dhaasanac and Oromo, who border each other at the northeastern shores of Lake Turkana.

Similarly, Dizi **bofi** 'venomous snake' can be viewed as a loan from Oromo **bofa** 'snake'. Linguistic contact between Dizi and Oromo is much harder to conceive though, as Dizi is spoken some 300 kilometers away from Oromo-speaking areas, with numerous other languages spoken in between. Still, it seems like Oromo has exerted much influence even in the Omotic-speaking highlands of southwestern Ethiopia despite the distance to the Oromo homelands. A more in-depth analysis is needed to understand the full extent of Oromo influence in the southwestern highlands.

Going back to Oromo, if indeed **bofa** 'snake' developed from a root ***baf-*** 'python', it may have been due to the current word for 'python', **jawwee**, filling this semantic space and pushing away the meaning of ***baf-*** (**bofa**) to 'snake', and further pushing the meaning of

[46] To illustrate, in Krapf's (1842) impressionistic Oromo vocabulary we can note the words **bofa** 'serpent' and **bõfa** 'viper', which obviously are the same lexeme. See Hazel (2019b: 55) on errors and inconsistencies in the record of snake-related terms in Oromo.

***maag-** (**maagaa**) ‘snake’ to ‘intestinal worm’ This would imply that **jawwee** originally had a meaning other than ‘python’. Incidentally, Orma (perhaps also Waata and Munyo, although data is lacking) being the only Oromo dialect having **maagaa** in the meaning of ‘large full-grown snake’ does not have the word **jawwee** for ‘python’. Rather, Orma has the root **musaangessā** for ‘python’ which happens to be uniquely shared with Sidaama **muusageessa** ‘water python, big snake’. No cognate to **jawwee** (nor **musaangessā**) is found in the Sagan branch of Central EC, where we would expect ***kaww-** or ***keww-** based on regular sound correspondence (see §2.5).

2.4.3 Proto Central EC: *buut- ‘puff-adder, viper’

Consider the following set of words meaning ‘viper’ or ‘puff-adder’:

Proto Central EC ***buut-** ‘puff-adder, viper’	(own reconstruction)
Oromo **buutii** ‘puff-adder, viper’	Ibsaa 2004
Orma Oromo **buuti** ‘puff-adder’	Hoskins 2025
Konso **puut-ota** ‘viper’	Black & Shako 1973
Dhirayta **púúš-at** ‘viper’	Black 1973

Table 43. Reflexes of Proto Central EC ***buut-** ‘puff-adder, viper’

Leus & Salvadori (2006: 98) claim that Borana **buutii** ‘puff-adder’ is derived from **buufa** ‘to blow, to puff [...]’. While the semantic link is clear and cross-linguistically extremely common, the process by which the word is derived is not entirely clear. Stroomer (1995: 45) only describes a feminine singulative suffix **-ttii**, but this is not used as a deverbal nominalizer and the gemination does not match. Yet, we do find similar-looking derivations, such as **mootii** ‘king’ from **moo’a** ‘to rule’ (Ibsaa 2004: 139).

The presence of cognates in the Sagan languages allows us to reconstruct the word to Proto Central EC as ***buut-** ‘puff-adder’. The Dhirayta cognate displays a regular development from older ***buut-** into **puuš-** (Black 1974: 187).

Outside of the Central East Cushitic branch, we find a form **buute** quite homogeneously in a number of neighbouring East Cushitic languages, cross-cutting various sub-branches:

Highland East Cushitic	
Sidaama **buute** ‘viper’	Indrias et al. 2007
Gedeo **buute** ‘poisonous snake sp.’	Wedekind 2008
Qabeena **bu:te amätä** ‘viper’	Haregewoin & Alemayehu 2015
Burji	
búutee ‘puff-adder’	Sasse 1982
buussee ~ buutee ‘viper’	Roba & Wedekind 2008
Western Omo-Tana	
Arbore **buuté** ‘puff-adder’	Hayward 1984
Dullay	
Tsamay **buuté** ‘puff-adder’	(own data)
Gollango **puut-e** ‘spitting snake, spitting cobra (*Naja nigricollis*)’ (?)	Armborn et al. 1980
Unclassified	
Ongota **buuté** ‘puff-adder’ (← Tsamay)	Savà & Tosco 2000

Table 44. Set of forms corresponding to Oromo **buutii** ‘puff-adder, viper’

The question is whether these are inherited or whether they are the result of areal diffusion. For Burji **búutee**, Sasse (1982: 45) noted the possibility of it being an Oromo loan. The issue here is that Oromo has **buutii** with a final **-ii** which none of the languages of southwestern Ethiopia reflect. Still, the homogeneity appears too great and too areal in distribution, as we do not attest the word in geographically distant relatives like Saho-Afar, Eastern Omo-Tana, and Dhaasanac. For Gedeo, one would think **buute** 'poisonous snake sp.' was borrowed from Oromo, as it also very clearly borrowed other primary snake vocabulary from Oromo such as **jawwe** 'python' and **bofa** 'snake'.

Notwithstanding this phonological issue, diffusal through Oromo seems highly plausible from a cultural point of view. Particularly among the Guji and Borana, the **buutii** 'puff-adder' has a great ritual significance. It is linked to the office of the *qaalluu*, the Oromo ritual leader, especially within the Gona moiety, and was physically kept in leather or bamboo containers within the *qaalluu*'s compound (Hazel 2019b: 48-49). The puff-adders were fed milk and pieces of fat and, in some regions, crawled freely inside the *qaalluu*'s house. Upon death, **buutii** were ceremonially buried in the cattle yard (Hazel 2019b: 53).

Still, the phonological issue and thereby the distributional issue remain for now unsolved.

2.4.4 Oromo, Sidaama, Gedeo, Bayso: d'ud'uufa 'python'

The word **d'ud'uufa** and its variants are found in the Cushitic languages spoken east of Lake Abbaya. We attest the following:

Central East Cushitic	
Arsi Oromo **ḍudŭ́fa** 'snake'	Haberland 1963
Borana Oromo **bofa dhudhufa** 'a very big snake' (cf. **bofa** 'snake')	Leus & Salvadori 2006
Highland East Cushitic	
Sidaama	
d'ud'uufa 'python'	Hudson 1989
ḍu'ḍûfa 'python (bigger than **musagêssa**)'	Gasparini 1983
Gedeo **d'udd'uufa** 'large-sized snake sp.'	Wedekind 2008
Northern Omo-Tana	
Bayso **d'ud'uufa** 'big snake, python'	Haberland & Lamberti 1988

Table 45. The word **d'ud'uufa** in East Cushitic

The Sidaama and Gedeo forms do not find cognates in the rest of Highland East Cushitic. It is most likely that the spread of this word is attributable to Oromo. In the ethnography of the Arsi Oromo by Haberland (1963: 306), he mentions the cultural role of **ḍudŭ́fa** (translation mine):

> "This ḳallu [='ritual leader'] also keeps snakes in his house, namely some *bŭ́ti* (vipers) and some *ḍudŭ́fa*. The *ḍudŭ́fa* is a giant snake, "the lord of the animals, which elephants and lions fear". The snake *mūsagḗsa*, which the other Galla call *ǧáwe* (python?), is not considered sacred and may be killed. Some of these *mūsagḗsa* are kept in a sack in the ḳallu's house. The *bŭ́ti* and *ḍudŭ́fa* are not locked up, but are allowed to move freely around the house, living either in the back room or in the attic. The ḳallu feeds them with a spoonful of butter and milk."
> —Haberland (1963: 306)

Given the importance of this snake in traditional Arsi Oromo culture, it seems likely that this word diffused from Oromo into Sidaama, Gedeo, and (perhaps via one of these) into Bayso.

This in congruence with the fact that all these languages have borrowed greatly from Oromo. A complicating factor is the fact that Oromo **ɗ'ud'uufa** is not attested in any dictionaries besides the inconspicuous mention by Leus & Salvadori (2006: 71) of the compound **bofa dhudhufa** 'very big snake'. This scarcity of attestation may simply be due to a lack of lexical documentation, most probably because this snake is only talked about in certain traditional cultural contexts as the one described in Haberland (1963: 306). It must be noted that the medial consonant in Haberland (1963: 306) is **d**, while in Leus & Salvadori (2006: 71) it is **ɗ**, as it is Bayso. For Sidaama, Anbessa (2019: 49) explicitly claims that the medial /**ɗ**/ in <dhudhdhuufa> is geminated. We also find this gemination in Gedeo. Haberland's transcription of medial /**d**/ is either not fully accurate, or an assimilative process has taken place at one point where medial **d** became **ɗ**.

The Bayso word **ɗ'uɗ'uufa** 'python' is reported in Haberland (1963: 715) and Haberland & Lamberti (1988: 92). This contrasts with Hayward (1979) and Abebe et al. (2015) who report **dóbos** 'python'. Haberland (1963: 715) equates Bayso **ḍūḍŭfa** to Oromo **jawwee** 'python', even though in the same book Haberland (1963: 306) mentions Oromo **ḍudŭfa** 'giant snake'. The Bayso word may have been borrowed directly from Oromo, Sidaama, or Gedeo, all of which Bayso borrows a great deal of lexicon from, especially from Gedeo (Hayward 1978: 73).

An intriguing parallel is found in the word for 'snake' in Aasax,[47] an extinct South Cushitic language of northern Tanzania, for which we do not find any South Cushitic cognates:

South Cushitic	
Aasax **tùḍŭ**:**fòʳ** 'snake'	Winter 1973

Table 46. Potential link to Oromo **ɗuɗuufa** in South Cushitic Aasax

It is hard to ascertain that this word belongs to the same etymon as Oromo **ɗuɗuufa** 'giant snake'. There is a possibility that this word is a borrowing from Oromo, in light of the hypothesis that Oromo was in contact with (Pre-)Tanzanian South Cushitic (Mous et al., in press), although it is not certain how Aasax exactly relates to this branch of South Cushitic (see Kruijsdijk 2024).

To complicate things even further, we may compare Ancient Egyptian **ḏdft** 'snake', as already found in Orel & Stolbova (1995: 108).[48] While this word is nearly identical in consonantal structure with the Oromo word, it must be noted that the graphemes **ḏ** and **d** are hypothesised to reflect the phonetic values *[tʲ] and *[t], respectively (Allen 2020: 58), although Satzinger (2019) argues that they may have been a glottalic *[c'] and *[t'].

Egyptian	
Middle Egyptian **ḏdft** 'snake, internal bodily worm'	Dickson 2006

Table 47. Middle Egyptian **ḏdft** 'snake'

It is difficult to speculate about the implications of this potential link. Since we cannot reconstruct the word beyond Oromo, perhaps due to a dearth of lexical documentation, a Cushitic etymology is uncertain. If these are Afroasiatic cognates, one wonders why still root is not found elsewhere (cf. however Orel & Stolbova 1995: 108). A borrowing scenario seems implausible given the distance in time and space.

[47] Mous (n.d.) instead lists **asúk** for 'snake' in Aasax.
[48] Orel & Stolbova (1995: 108) regard the final **-t** as a separate segment, although it is not clear to me what the reasons for this are.

2.4.5 Oromo, Sidaama: muusageessa ‘python’

Another shared word for ‘python’ between Oromo and Sidaama is the following:

Central East Cushitic	
Arsi Oromo **mūsagḗsa** ‘python’	Haberland 1963
Orma Oromo **musaangessā** ‘African rock python’	Hoskins 2025
Highland East Cushitic	
Sidaama	
mûsagêssa ‘water python, big snake (smaller than **ḍu’ḍûfa**)’	Gasparini 1983
muusageessa ‘python’	Indrias et al. 2007

Table 48. Oromo and Sidaama **muusageessa** ‘python’

As with **ɗuɗuufa** ‘python’, the Oromo word **muusageesa** is not found in dictionaries of Central Oromo (Ethiopian Oromo) varieties. It is only convincingly attested in Haberland’s (1963: 306) ethnographic description of the Arsi Oromo (see the previous section). Yet, we do attest the word **musaangessā** in the divergent Orma variety of eastern Kenya (Hoskins 2025). The masculine formative suffix **-eessa** makes this form characteristically Oromo. It is therefore most likely that the Sidaama word **muusageessa** is borrowed from Oromo. We find no cognates to the Oromo word in the Sagan languages or elsewhere in East Cushitic, and no root ***muusag-** can be identified. The etymology remains obscure. We may wonder about any relation with the Teso (Eastern Nilotic; Teso-Turkana; spoken in Eastern Uganda) word **emusaga** ‘cobra’ (found in Ongodia & Ejiet 2008: 165) in which **e-** appears to be a prefix. No cognates are found in the closely related Turkana and Karimojong languages, which have a word for ‘cobra’ that derives from the word for ‘shield’ (see section §2.2.3).

2.4.6 Oromo, Hadiyya: t’ara

Haberland (1963: 516) reports yet another word for a python-like snake in Arsi Oromo, which he describes follows (translation mine):

> “Snakes can also infest humans as spirits, especially the large one called *ṭára*, which is said to look similar to the python (*ǧawe*).”
> —Haberland (1963: 516)

Again, we do not find this word in any Oromo dictionary, yet we do attest the word in Hadiyya and Kambaata of the Highland East Cushitic branch:

Central East Cushitic	
Arsi Oromo **ṭára** ‘large snake (python?)’	Haberland 1963
Highland East Cushitic	
Hadiyya	
t’araʔa ‘python’	Tadesse 2015
/t’arakkicco/ (sg.), **/t’araʔa/** (pl.) ‘python’	Ritter 2007
Kambaata	
t’araʔa ‘python’	Hudson 1989
/t’araiccu/ ‘python’	Alamu 2009

Table 49. Oromo **t’ara** and Hadiyya **t’araʔa** ‘python’

I regard the Kambaata word to be a borrowing from Hadiyya for a couple of reasons. Firstly, it displays the characteristic Hadiyya **-VʔV** nominal ending which is not normally found in

Kambaata nouns. Secondly, the word is not attested in the languages closest to Kambaata such as Alaaba and Qabeena. And lastly, we find other words for 'python' in other sources on Kambaata, like **dahichchu** (Alamu 2009) and **adaayyé** (Treis 2008), although Alamu (2009) also lists **xaraichchu** 'python' but refers back to the more common word **dahichchu**.

Given the strong influence of Oromo on the Highland East Cushitic, I take this item to be loan into Hadiyya. Besides the Hadiyya loan in Kambaata, the item is not found in other Highland East Cushitic languages. The ending **-VʔV** seen in Hadiyya **tʼaraʔa** is especially prevalent in loanwords. Examples are **diinaʔa** 'enemy' (Oromo **diina**), **daabboʔo** 'bread' (Oromo **daabboo**), **hamleʔe** 'July' (Amh. **hamle**), **kitaaboʔo** 'text', **tambaaʔa** 'tobacco'. Tadesse (2015: 59) states that "disyllabic proper nouns duplicate their final vowel and insert the glottal stop to avoid vowel cluster in absolutive". The above examples however are not proper nouns. Instead, they look like loans, and the addition of the glottal stop may be a phonological adaptation in order to fit these words in Hadiyya grammar without affecting the final vowel of the source word (but cf. Sosal (forthcoming) for a different analysis).

In Maasai, an Eastern Nilotic language of Kenya and Tanzania, we find the word **(ɛ́n-)tárâ** for 'python' (Payne & Ole-Kotikash 2008). Hazel (2019b: 20) suggests the possibility that this Maasai term (as well as Kikuyu **itarara** 'python') originates in Oromo. Given that Maasai does not have phonological ejectives, it would indeed adapt **tʼara** with a plain /t/.[49]

In Dahalo, a Cushitic language variously classified as either belong to South or East Cushitic, we find **ʈáʔala** 'puff-adder' (Ehret et al. 1989). The sound correspondences are not sufficiently clear to allow us to argue for cognacy with Oromo **tʼara** 'python'.

It does not appear possible to bring back the Oromo word any further. The above discussion can be summarised as follows:

Oromo **tʼara** 'a kind of python'
→ Hadiyya **tʼaraʔa** 'python' (Hadiyya adaptation in **-ʔV**)
→ Kambaata **tʼaraʔa** 'python' (Hadiyya-specific word structure in **-ʔV**)
→ Maasai **(ɛ́n-)tárâ** 'python' (uncertain)

[49] Compare however Turkana **tar** 'to swell' (Barrett 1990: 84) which may be cognate to Maasai **(ɛ́n-)tárâ** 'python' which could mean that the Maasai word is a native formation.

2.5 Proto East Cushitic: *gawʔ- ‘python’

In this section, I argue for the cognacy of Arbore **ŋawʔ** ‘crocodile’, Oromo **jawwee** ‘python’, Afar **gawi** ‘python’, and Dahalo **gawe** ‘snake’, among others. Since the Arbore word has already been subject to reconstruction by Ehret (1991), I will start with a reassessment of his proposed Proto East Cushitic root ***ŋaʕw-** ‘crocodile’.

2.5.1 Review of Ehret’s (1991) PEC root *ŋaʕw- ‘crocodile’

The initial velar nasal **ŋ** that we observe in Arbore **ŋawʔ** ‘crocodile’ is rare in East Cushitic. The phoneme is found in initial position only in Yaaku and Arbore, although marginally in the latter, with Hayward (1984: 52) reporting only *5* instances.[50] Based on the presence of the initial velar nasal in these two languages, Ehret (1991: 262) proposes to reconstruct the velar nasal for Proto East Cushitic. This is in contrast to Black (1974) and Sasse (1979), who neither reconstructed nor discussed this phoneme. This is likely due to the scarcity of data on Arbore at that time.

Ehret (1991) reconstructs ten Proto East Cushitic roots with initial **ŋ-**, one of which is based on the Arbore word **ŋawʔ** ‘crocodile’:

Proto East Cushitic ***ŋaʕw-** ‘crocodile’
- Arbore **ŋawʔ** ‘crocodile’
- Somali **gaanni** ‘adult male crocodile’
- Oromo **nyaa-ca ~ naa-ca ~ naa-cca** ‘crocodile’
- Gawwada Dalpena **naʕa-acco** ‘crocodile’

Ehret’s (1991) reconstruction ***ŋaʕw-** and its proposed reflexes

While it is clear that this reconstruction principally derives from the Arbore word **ŋawʔ**, I have serious doubts about the other proposed reflexes in this set. Starting with Somali, Ehret argues for the addition of a nominal suffix ***-n** to the PEC root ***ŋaʕw-** which triggers regressive assimilation with ***w** to geminate **nn**, and for the loss of the pharyngeal **ʕ** giving rise to a long vowel **aa**, ultimately yielding **gaanni**. One of the problems with this idea is that ***-n** cannot be proven to be a nominal suffix, and even if it did, it does not fulfill a clear function here. Besides, it does not explain why this word ends in an **-i**. Instead, it seems more likely to derive **gaani** ‘full-grown crocodile’ (as found in Zorc & Osman 1993: 147 and Keenadiid 1976: 159) from the word **gaan** ‘strength, toughness, massiveness’ (as found in Zorc & Osman 1993). In a much older dictionary by De Larajasse (1897: 52), we find **gān** ‘old, aged’. In a similar fashion, this root derives the word **gaane** ‘strong robust person or animal’ (Zorc & Osman 1993: 147). In Jiiddu, there is also the word **gaannuuk** ‘monitor lizard’, which seems to be derived on the same semantic basis as Somali **gaani** ‘full-grown crocodile’, given its large size.[51] Further Cushitic cognates may include Kambaata **gaaná** ‘fat (adj.)’, Burji **gaan** ‘big’, Tsamakko **gaan** ‘to be plenty’, Dahalo **gaano** ‘large, big; grown-up person’ and Konso **kaan-** ‘to be left to grow big and deep-rooted (of a tuber)’. As the Somali-internal explanation appears more parsimonious in explaining the form **gaani**, I will reject Ehret’s proposed link with Arbore **ŋawʔ** ‘crocodile’.

The proposed Oromo reflex **nyaaca/naaca/naacca** ‘crocodile’ is left entirely unexplained by Ehret, apart from him assigning arbitrary morpheme boundaries to separate **nyaa/naa-** from **-ca/-cca**. The disappearance of Proto East Cushitic ***w** into the Central East Cushitic

[50] Ongaye (2021) reveals another 3 lexemes with an initial velar nasal in Arbore: **ŋirrin** ‘tanning whip’, **ŋorni** ‘stomach bloating’, and **ŋorɲaaŋorɲó** ‘eardrum’. In Wedekind (2001), we find only one occurrence: [**ŋɔr**] ‘mud’.

[51] Salim et al. (2024) note that Jiiddu **gaannuuk** ‘monitor lizard’ is a loan from Maay, although no adequate Maay data exists to confirm this.

branch is unwarranted (Black 1974; Sasse 1979). Besides, the historical status of the palatal nasal in Oromo is not fully clear. We find a variant without a palatal nasal in Gragg's (1982) dictionary of West Central (Wollega) Oromo, which is also the pattern we observe in the Sagan branch of Central East Cushitic:

Oromo	
Wollega Oromo **naaca** 'crocodile'	Gragg 1982
Borana Oromo **nyaaca** 'crocodile'	Stroomer 1995
Orma Oromo **ñaaççā** 'crocodile'	Hoskins 2025
Sagan	
Konso	
náácc-aa 'crocodile'	Black & Shako 1973
Kussummiya	
naatɲa 'crocodile'	Wondwosen 2023
natʃtʃa 'crocodile'	Wondwosen 2023

Table 50. Cognates to Oromo **nyaaca** 'crocodile'

Given that initial **ɲ-** is allowed in the phonology of Konso and Kussummiya, there seems no reason for Proto Central East Cushitic ***nyaaca** to change into ***naaca** into Proto Sagan. Instead, Oromo may have innovated **ɲ-** from earlier ***n-**, perhaps under influence of the palatal in the following syllable, at least in certain dialects such as Borana, Orma, and Waata. A parallel case is seen in the word for 'lion', which is uniquely palatalised in Borana Oromo **nyeenca** vs. Wollega Oromo **leenca** and Orma **neenk'a** ~ **neek'a**.

Leus & Salvadori (2006: 481) indicate that **nyaacha** 'crocodile' is derived from the verb **nyaatta**[52] 'to eat', as Stroomer (1995: 212) also seems to suggest. It is not clear however by which morpheme or derivational process the noun is derived. For the Sagan languages, such language-internal explanation cannot be given, as both Konso and Kussummiya have the verb **ɗam-** for 'to eat'. That could either mean that 1) the Sagan forms are borrowings from Oromo where the derivational process took place; 2) that the derivational process of **nyaaca** 'crocodile' from a word meaning 'to eat' must be brought back to a Proto Central East Cushitic stage, under the assumption that the word **nyaatta** (or **nyaad'd'a**) 'to eat' can be reconstructed for Proto Central East Cushitic; or 3) that the derivation is a (linguist's) folk etymology and that these Central East Cushitic words for 'crocodile' are an independent cognate set. This third option may be plausible because I have not observed this semantic link between 'to eat' and 'crocodile' for any other Ethiopian or Kenyan language. This would allow the word to be reconstructed for Proto Central East Cushitic as ***naac-** 'crocodile'. A problem arises from the fact that we find both **naatɲa** and **natʃtʃa** in the Kussummiya data by Wondwosen (2023). It is unknown how these two forms relate to each other. It is possible that the former is a typo for what should have been "**naatʃa**", given how closely related Kussummiya and Konso are. Based on regular sound correspondences, we would expect this item to be ***naatʃtʃa** in Kussummiya.

Ehret cites the Gawwada Dalpena term **naʕa-acco** 'crocodile' as a cognate within the Dullay cluster of East Cushitic. However, his segmentation of the word lacks justification, and the alleged suffix **-acco** does not exist in Gawwada (see Tosco 2021). It is most likely that this item is simply a transfer from one of the neighbouring Sagan languages in which many Gawwada are bilingual, e.g. from Konso **nááccaa** 'crocodile'. This idea is supported by the fact that we find a different root for 'crocodile' widely shared among the other varieties of the Dullay cluster, namely **haaro** in Gawwada proper and Gollango (Amborn et al. 1980), and

[52] Leus & Salvadori (2006: 481) actually refer to a verb **nyaata** by which I assume they mean to refer to **nyaatta ~ nyaadha** 'to eat'.

xaaró in Tsamay (own data).[53] The pharyngeal in Gawwada Dalpena then has to be regarded as secondary, although in the absence of other data it would be risky to rely on this one transcription.

2.5.2 New proposal: *gawʔ- 'python'

Given the many problems identified in Ehret's (1991: 264) reconstruction and his dubious selection of cognates, I reject his proposed root ***ŋaʕw-** 'crocodile' and instead I propose a Proto East Cushitic root ***gawʔ-** 'python', with the following reflexes:

Central East Cushitic	
Borana Oromo **jawwee** 'python'	Leus & Salvadori 2006
Wollega Oromo **jawwee** 'python'	Gragg 1982
Saho-Afar	
Afar **gawi** 'python'	Parker & Hayward 1985
Western Omo-Tana	
Arbore **ŋawʔ** 'crocodile'	Hayward 1984
South Cushitic (?)	
Dahalo **gawe** 'snake'	Ehret et al. 1989

Table 51. Proposed reflexes of Proto East Cushitic ***gawʔ-** 'python'

This implies that the velar nasal is an innovation in Arbore. The reasoning for this lies in the fact that initial **ŋ-** is marginal in East Cushitic, and that posing initial ***ŋ-** as a phoneme in Proto East Cushitic would require every branch to have independently merged ***ŋ-** into **g-**, with the exception of Arbore and Yaaku. It is more likely to assume that Arbore and Yaaku expanded their phonological inventories with initial **ŋ-**, possibly under the influence of neighbouring Eastern Nilotic languages where this segment commonly occurs.[54] It is not clear, however, why this phonological innovation affected only some roots inherited from East Cushitic while others retained ***g**.[55] In Sosal's (forthcoming) reconstruction of Proto East Cushitic, ***ŋ** is not recognised as a reconstructable phoneme.

The palatal affricate **j** in Oromo **jawwee** 'python' has regularly developed from Proto East Cushitic ***g** before a front vowel (Black 1974; Sasse 1979). We see this in other roots like Or. **jald-eesa** 'baboon' < PEC ***gelz-**, Or. **jal-** 'to enter' < PEC ***gel-**, and Or. **jaal-ad'-** 'to love' < PEC ***geʕl-**. This would call for ***e** as the reconstructed vowel. I choose to reconstruct ***a**, however, as this is what we find in all proposed cognates of ***gawʔ-** 'python'. That would mean the vowel became fronted only in an early Central East Cushitic stage (the common ancestor of Oromo and the Sagan group), and subsequently ***ge-** palatalized to **ja-**. We see evidence for this in the fact that Konso **kela** 'under' corresponds with Oromo **jala** 'under',

[53] The word **xaro** 'crocodile' is listed in Savà (2005), but I was not able to confirm the short vowel. Also given the fact that all other Dullay varieties have a long vowel in this root, it is likely that Savà's **xaro** is a faulty transcription.

[54] It is noteworthy that Dhaasanac (Western Omo-Tana), which is and has been in most intense contact with Nilotic, has not phonemicised **ŋ** word-initially (with the exception of the word **ŋaaric** 'name of a territorial section', perhaps from Nyangatom) and adopts Turkana **ŋ**-initial words as **ɲ**, e.g. Dh. **ɲékuɲug** < Turkana **ŋikuŋuko** (Tosco 2001: 522). See also Tosco (2001: 17). If **ŋ** were a retention in Arbore, we would have expected Dhaasanac to retain this phoneme too, given its intense contact with Nilotic.

[55] Yet another possibility is to accept Arbore **ŋ-** as a retention, thereby following Ehret's (1991) proposal of PEC initial ***ŋ**, and reconstructing ***ŋawʔ-**. We could imagine the replacement of initial ***ŋ** with **g** as an areal sound change that escaped Arbore and Yaaku on the southern fringes of the Cushitic territory. Note that Appleyard (2006: 13) reconstructs ***ŋ-** for Proto Agaw, although this phoneme regularly corresponds to Proto East Cushitic ***m-** (e.g. PA ***ŋat-a** 'head' and ***ŋən-** 'house' vs. PEC ***maθ-** 'head' and ***min-**/***man-** 'house').

but outside of Central EC with Saho **gale** 'inferior' and Gawwada **kale** 'downhill'. Therefore, I propose the reconstruction ***gawʔ-** instead of ***gewʔ-**.

The proposed proto form ***gawʔ-** 'python' is supported by the cognates in Afar **gawi** 'python' and Dahalo **gawe** 'snake'. There are other similar forms in Saho-Afar, but it is not clear how these relate to Afar **gawi** 'python' and Oromo **jawwee** 'python', as PEC medial ***w** would be preserved in Saho-Afar (Sasse 1979) and not change to **b**. These forms will have to be explained otherwise:[56]

Saho-Afar	
N. Saho **gaabbaa** '[python]'	Vergari & Vergari 2003
Afar **gàbbay** 'a man-eating mythical monster, a fanciful huge snake-like creature [...]'	Parker & Hayward 1985

Table 52. Non-cognates to PEC ***gawʔ-** 'python' in Saho-Afar

For Arbore, I take **ŋawʔ** 'crocodile' to be the reflex of PEC ***gawʔ-** 'python'. As stated before, I take the phoneme **ŋ** as an innovation, although the historical phonology of this phoneme deserves a separate treatment.

The semantic shift between 'python' or 'snake' and 'crocodile' is also observed elsewhere. For Northern Mao (Omotic), Ahland (2012) reports **téwè** 'python' while Siebert et al. (2002b) report [tɛ́wɛ̀] 'crocodile'. In Swahili, the word **mamba** means both 'crocodile' and 'black or green mamba snake' (Tuki 2004).

Ongaye (2021) does not transcribe a word-final glottal stop for the Arbore word. In my own data on Arbore, collected from one speaker, I found the forms [ŋawʔ] and [ɲawʔ] in variation. Throughout the lexicon, the glottal stop was heard word-finally, and its phonemic status in this position remains a question for further investigation. In my data, the word-final glottal stop was not retained in the masculine form [ŋawín] 'male crocodile', suggesting that it may be a phonetic occurrence.

Western Omo-Tana	
Arbore	
ŋawʔ 'crocodile'	Hayward 1984
ŋaw 'crocodile'	Ongaye 2021
Elmolo	
nyáut 'crocodile'	Heine 1980
nyáud 'crocodile'	Heine 1973
ɲaud 'crocodile'	Tosco 2015

Table 53. Proposed reflexes of PEC ***gawʔ-** 'python' in Western Omo-Tana

The Elmolo cognate is problematic because it has a **-t** ~ **-d** in word-final position. Comparing the rest of the vocabulary of Arbore and Elmolo, we find that this is a singular case of such a correspondence. Elmolo words with final **-t** match a final **-t** in Arbore, such as Elmolo **úrat** 'skin' vs. Arbore **ḳurat** 'skin'. Word-final glottal stops in Arbore match with zero in Elmolo, e.g. Arbore **geréʔ** 'belly' vs. Elmolo **gére** 'stomach', or with **h**, e.g. Arbore **léʔ** 'moon, month' vs. Elmolo **léhe** 'moon'. I thus do not readily have an explanation for the final **-t** ~ **-d** in **nyáut**. It is well possible that the **-t** ~ **-d** in Elmolo is a suffix. The feminine inflected form in

[56] Saho **gaabbaa** 'python' may perhaps be compared to Tigrinya **gäbbäl** 'python'. The Tigrinya form has no cognates in the rest of Ethiosemitic. The final **-l** is problematic in linking these two forms, though.

Heine (1980) is **nyáú-te** 'young crocodile' (rather than ***nyáut-te**) which corresponds with Arbore **ŋawʔ-té** 'crocodiles'.

The medial segment **-ww-** in Oromo **jawwee** 'python' can be reconstructed to ***-wʔ-** in Proto Central East Cushitic. The reconstruction can be compared to that of **k'awwee** 'gun, rifle' in Sasse (1982: 122), who poses the Proto Central East Cushitic form ***k'awʔ-ee**, ultimately going back to PEC ***k'awʕ-** 'thunder' (Sasse 1979: 48). However, since the PEC pharyngeal ***ʕ** would be preserved in Saho-Afar (as in Saho **ʔawaʕ** 'approaching thunderstorm'), its absence in Afar **gawi** 'python' requires us to pose medial **-wʔ-**, which regularly matches the loss of the glottal stop ***ʔ** in Saho-Afar (Sasse 1979: 52).

Similarities between Oromo **jawwee** and an Omotic root meaning 'python' (e.g. Ometo **dawwe**, and Dizi **dawa**), have been noted by Bender (2003: 233), who conjectured that Oromo may have borrowed this from the Omotic root ***daw-** 'python'. In light of the Cushitic-internal correspondences discussed here, there is no evidence that this word is borrowed, or that the Omotic and Cushitic roots relate to each other in any way. It will be argued in section §3.2 that the Ometo forms **daww-** 'python' can be reconstructed to Proto Omotic.

2.5.3 Oromo jawwee 'python' elsewhere

As a loanword from Oromo, we find attestations in the following East Cushitic languages, which are all in intense contact with Oromo. The initial palatal consonant **j** is an Oromo-specific innovation which identifies these as loans:

Eastern Omo-Tana	
Girirra **dʒawwee** 'python'	Mekonnen 2015
Highland East Cushitic	
Qabeena **dʒäw-ita** 'python'	Haregewoin et al. 2015
Gedeo **jawwe** 'python'	Hudson 1989

Table 54. Loans from Oromo **jawwee** 'python'

Looking outside of Cushitic, we find an interesting match in Dime (Omotic; South):

East Cushitic	
Proto EC ***gawʔ-** 'python'	(own reconstruction)
Oromo **jawwee** 'python'	Ibsaa 2004
South Omotic	
Dime **gawwu** 'intestinal worm'	Mulugeta 2015

Table 55. Possible link to the East Cushitic root ***gawʔ-** in Dime

It is very probable that this word is a borrowing, as medial **-ww-** in Dime is only attested in two words (the other one being the word for 'python', see section §3.2.3). The word cannot be explained as a borrowing from Afar **gawi** or Dahalo **gawe** 'snake' since these do not have a geminate **-ww-** in this root. Instead, it is most likely that this loan is from a stage of Central East Cushitic (Sagan + Oromo) before the sound change from ***ge-** to ***ja-** had taken place, but after ***-wʔ-** already had developed into **-ww-**. This could be either an early stage of Pre-Oromo, or simply Proto Central East Cushitic, for which we can reconstruct ***gaww-/*geww-** 'python~snake' solely based off of Oromo **jawwee** 'python'. The reconstruction of 'python' for this root is less desirable as I have argued in section §2.4.2 for

reconstruction ***baf-*** 'python' for Proto Central EC. This word is not attested in other South Omotic languages like Hamar or Aari, nor in any neighbouring languages.

Regarding the semantic development, I have already shown that there is a strong unidirectional semantic link between 'snake' and 'intestinal worm' (see section §1.5.2). It is therefore likely that Dime borrowed from a source where ***gaww-*** meant 'snake' rather than 'python'. This could support the idea that Proto Central EC ***gaww-***/***geww-*** had the meaning of 'snake' rather than 'python'. Yet, we find a correspondence between 'python' and 'intestinal worm' between Somali **sumbay** 'intestinal worm' and Kalenjin (Southern Nilotic) **#sumbay** 'python' which must also result from borrowing, although the direction is unclear.[57] The case of Dime **gawwu** 'intestinal worm' suggests that this meaning is innovative, which if extended to the case of **#sumbay** it would mean that Somali borrowed this word from Kalenjin, although this certainly awaits further investigation.

2.6 Highland East Cushitic: *warr- 'python'; *hamas- 'snake'

Within Highland East Cushitic, the root ***warr-*** is solidly attested in Northern HEC (i.e. the Hadiyya-Kambaata cluster), but not in Sidaama, Gedeo, and Burji. We also find the root in Afar as **warru** 'snake', but it is absent in Saho. In Bayso, we find **waarre** 'black snake'. Its absence elsewhere in East Cushitic, makes it hard to say whether this root in HEC and Afar is inherited from an earlier stage of East Cushitic. There are no diagnostic sound changes in either branch by which we can distinguish borrowing from inheritance. Prehistoric contact between Saho-Afar and HEC must also be considered, but this is obviously a task to be taken up in future research. The following forms are attested:

Northern Highland East Cushitic	
Qabeena **worriiccu** 'snake'	Crass 2001
Alaaba **worriccú** 'snake'	Schneider-Blum 2007
Kambaata	
worrú (sg. **worrichchú**) 'snake'	Treis 2008
warra (sg. **warriccu**) 'snake'	Hudson 1989
Hadiyya	
wólličo 'giant snake'	Plazikowsky-Brauner 1964
wollicho 'large snake'	Ritter 2007
Saho-Afar	
Afar	
wàrrū 'snake'	Parker & Hayward 1985
wárrū 'a kind of small, very poisonous snake (viper?)'[58]	Reinisch 1887
wárrā 'snake'	Colizza 1887
wárru (pl. **waarrá**) 'snake'	Morin 2012
Omo-Tana	
Bayso **waarre** 'black snake'	Abebe et al. 2015

Table 56. Links to Afar **warru** 'snake'

Within Highland East Cushitic, it is solidly attested in Northern HEC (i.e. the Hadiyya-Kambaata cluster), but not in Sidaama, Gedeo, and Burji. This, along with its absence elsewhere in East Cushitic, makes it hard to say whether this root in HEC and Afar is

[57] I thank Federico Falletti for kindly collecting the following data on Southern Nilotic varieties: Sengwer **kip-sumbay** 'python', Pokoot **sɔ̀mpàj** 'python', Koony Ogiek **p-sɪmpa.ʊʊt** 'python'.
[58] Reinisch (1887: 122) adds that this snake is "wrapped around the neck by the jugglers and carried around in public" (translation mine).

inherited from an earlier stage of East Cushitic. Prehistoric contact between Saho-Afar and HEC must also be considered, but this is obviously a task to be taken up in future research.

The word is clearly borrowed into Argobba and the "Gurage" languages:

Ethiosemitic	
Northern Argobba	
ውሮ wäro 'snake'	Girma 2015
wərro 'snake'	Hussein et al. 2014
wärro 'snake	Zelealem & Siebert 2001
"Gurage"	Leslau 1979
Silṭe **wäro ~ woro** 'python'	
Wolane **wäro** 'python'	
Zay **wäru** 'python'	
Mesqan **oro** 'python'	

Table 57. Gurage correspondences

The distribution within Ethiosemitic is limited, the root only being found in Northern Argobba and the East Gurage languages as well as Mesqan.[59] Leslau (1997: 225) indeed compares the Northern Argobba word **wärro** 'snake' to these other Semitic languages and assigns a Cushitic origin to it, linking it with Afar **warru** 'snake'.

The "Gurage" forms are treated by Leslau (1979: 660) as borrowings from HEC. The fact that the meaning 'python' is found in all of these languages is very interesting and provides clues about the development of the Highland East Cushitic languages. The only HEC language today that has a matching meaning is Hadiyya **wólličo** 'giant snake'. The fact that Hadiyya underwent a regular sound change from ***-rr-** to **-ll-** (Hudson 1989: 7), means that Hadiyya is ruled out as the donor language for these Gurage forms. It is also ruled out that the acquisition of the meaning 'python' is on the side of the Gurage languages, as they belong to different branches of Ethiosemitic. Instead, what I propose is that 'python' is the archaic meaning that is to be reconstructed for a Proto Northern HEC form ***warr-**, and that the Gurage languages must have borrowed the word at this proto-stage. In the subsequent development of Proto NHEC, the Kambaata cluster remained phonologically close to the proto-form, but shifted the meaning of PNHEC ***warr-** 'python' to 'snake'. This happened as part of a chain shift in which the Proto NHEC root ***hamas-** 'snake' shifted to 'intestinal worm' in these languages, but remained 'snake' in Hadiyya and Libido. The word for 'python' in the Kambaata cluster was most likely borrowed from an Omotic source (see §3.2.1). The current Hadiyya word for 'python' is **ťaraʔa**, which I take as a borrowing from Oromo (see §2.4.6). The fact that Hadiyya borrowed the word for 'python' from Omotic may be the cause of **wólličo** shifting to the more broad meaning of 'giant snake'. In summary, this semantic match between Hadiyya and the East Gurage languages plus Mesqan provides evidence that Proto Northern HEC must have been in contact with these languages, and allows us to reconstruct the meaning of 'python' for that stage. The following schemes summarise these diachronic developments:

[59] Note that Mesqan is linguistically closest to Gurage "proper", such as the Sebat Bet Gurage cluster, while the East Gurage languages are considered to be closer to Harari (Leslau 1992; Goldenberg 2005).

Stage	Forms	Notes
1.	Proto NHEC ***warr-** 'python'	- Transferred into East Gurage and Mesqan
2a.	Hadiyya **wólličo** 'giant snake' Libido **?**	- Phonological shift, semantic retention
2b.	Kambaata **worrichchú** 'snake' Alaaba **worriccú** 'snake' Qabeena **worriiccu** 'snake'	- Phonological retention, semantic shift

Table 58. Phonological and semantic developments of PNHEC ***warr-** 'python' in NHEC

Stage	Forms	Notes
1.	Proto NHEC ***hamas-** 'snake'	- Reconstructable to Proto HEC
2a.	Hadiyya **hamaššico** 'snake' Libido **hamašico** 'snake'	- Semantic retention
2b.	Kambaata **hamasu** 'ascaris' Alaaba **hamashú** 'hookworm' Qabeena **hamäʃu** 'intestinal worm'	- Phonological shift, semantic shift

Table 59. Phonological and semantic developments of ***hamas-** 'snake' in NHEC

Leslau (1997: 225) also links the Argobba word with Saho **arōra** 'snake', thereby implying cognation of the latter with Afar **warru**. This link is problematic, however, as we find both the roots **warru** and **arora** in the Afar (Morin 2012: 124, 908; Colizza 1897: 135, 107). For this reason, the root **arōra** 'snake' is treated separately in the present study (see the previous section §2.3.1).

The presence of **wärro** 'snake' in Argobba is to be explained as a borrowing, presumably from Afar. We must note that this word for 'snake' is one of the many isoglosses which distinguish Northern Argobba from Southern Argobba. Girma (2015) argues that Northern Argobba is a different language from Southern Argobba, and that Southern Argobba is in fact linguistically more closely related to Amharic than to Northern Argobba (e.g. note that Northern Argobba preserves pharyngeal consonants). In Southern Argobba, the word for 'snake' is **həwaw** (Leslau 1973: 32; Girma 2015: 261; see also Hussein et al. 2014), which is the inherited South Ethiopic root for 'snake'. Leslau (1997) found a number of Argobba lexemes to be borrowed from (Saho-)Afar and Hussein et al. (2014: 6-10) noted bilingualism in Afar for some Argobba speakers, giving support to **wärro** being a borrowing.

Now regarding the word **waarre** 'black snake' in Bayso[60], it is hard to identify this as a loan since the languages from which Bayso evidently borrows (Oromo, Wolaytta, Sidaama/Gedeo, Amharic) do not possess this root. Yet, Morin (2003: 201) remarks that there are a handful of lexical items that Bayso shares with (Saho-)Afar and no other Cushitic language. Morin (2003) regards these words as shared retentions, but given our poor understanding of the prehistory of this area, contact between languages that are no longer spoken in each other's vicinity cannot be ruled out. Other words that Bayso shares with Afar are **ziizaale** 'bee' (Afar **diidaale**, Saho **zizzaale** 'bee'; cf. PEC ***ziiz-** 'honey' (Sasse 1982: 55)),

[60] Admittedly, the mismatch in vowel length may be problematic here, compared to the bulk of the other forms in this set, but I would nevertheless like to consider it related to the above set.

duulo 'hippopotamus' (Afar **duul** 'hippopotamus')[61], **anna** 'paternal aunt' (Afar **anna** 'aunt'), and **dabbaalo** 'heifer' (Afar **dabeèla** 'billy goat'). The relation between (Saho-)Afar and Bayso is an issue that remains open for further study.

Another possibility is that Bayso acquired this word through contact with Kambaata/Alaaba/Qabeena (or their common ancestor for which we can reconstruct ***warr-** 'python'). The reason for this is the presence of some uniquely shared lexicon between them, notably the word for 'black' which in Kambaata/Alaaba/Qabeena is **gamballá**, as it is in Bayso, **gamballa**. This word is lacking in Hadiyya (but cf. **gambabba** 'darkness') and the rest of Highland East Cushitic, similar to the distribution of the root ***warr-** 'python'. The nature of the Bayso lexicon remains extremely puzzling, though. These comments are only meant as a starting avenue for further research into the extent to which they share lexicon that is not found elsewhere in Cushitic.

2.7 Dullay: *daww- 'snake'

Looking now at Dullay, we find a coherent set of forms:

Dullay	
Tsamay	
dawwó 'snake'	(own data)
dawo 'snake'	Hayward 1989
Gawwada	
táwwo 'snake'	Black 1976
tawo 'snake'	Tosco 2022
Dobase **táwwo** 'snake'	Amborn et al. 1980
Gollango **táwwo** 'snake'	Amborn et al. 1980
Harso **táwwo** 'snake'	Amborn et al. 1980

Table 60. Dullay ***daww-** 'snake'

Based on these forms, we can reconstruct Proto Dullay ***daww-** 'snake' without any issues.[62] All Dullay varieties east of the Woyto River show the regular loss of voicing contract in plain stops, which was preserved in Tsamay. Beyond Proto Dullay, the term finds no cognates in the rest of Cushitic. Instead, it perfectly matches with Proto Ometo ***daw-** 'python', found in the following:

North Omotic	
Proto Ometo ***daw-** 'python'	(own reconstruction)
Wolaytta **dáwwiya** 'python'	Firew Elias, p.c.
Gamo **dáwwe** 'python'	(own data)
Basketo **dawa** '[...] python'	Treis 2020
Oyda **dawwe** 'python'	Fleming 1971 [Bender 2003]

Table 61. Proto Ometo ***daw-** 'python'

[61] We may compare Konso **tulp-eeta** and Gawwada **tulp-e** 'hippopotamus', though, given that these would derive from earlier ***dulb-**. But, it is not clear whether this root has an origin in Sagan or Dullay, and how these forms further relate to Bayso and Afar since the final **b** cannot be explained by any known regular process. The root ***dulb-** 'hippopotamus' is not found in Oromo (**roobii**), Dhirayta (**hons**), Mosiye (**harok'e**), nor in Tsamay (**reento**) which hinders any attempt at further reconstruction.

[62] It is not clear why Tosco (2021; 2022) has a singleton medial **-w-** rather than the **-ww-** which we find in Black's (1976) Gawwada and elsewhere in Dullay. Oromo **qawwee** 'gun' is also found in Tosco's (2022: 73) Gawwada with a singleton **w** in **k'awe** 'gun'. The reason is not clear, since **-ww-** is frequently found throughout Tosco's lexicon. A similar question arises regarding Hayward's (1989) **dawo** 'snake' in Tsamay, against Savà's (2005) **dawwo** 'snake' and **dawwó** 'snake' in my own data.

Since the Ometo root is reconstructable to earlier stages of Omotic (in section §3.2, I argue for Proto Omotic ***dab-** 'wild animal'), we can accept Proto Dullay ***daww-** to be a loan from Ometo. In many Ometo languages, we find the word with a geminate **-ww-** as in Gamo **dáwwe** 'python'. We could therefore perhaps directly attribute the borrowing to a certain stage of Ometo. Unfortunately, our present understanding of the linguistic history of the Ometo group is too limited, and very little data is available.

Another Ometo loan is found in Tsamay **šoš-kó** 'viper' (Hayward 1989) which is isolated in Dullay and Cushitic and instead matches Proto Ometo ***ʃooʃ-** 'snake' (see section §3.1). The word was not recognised by my Tsamay informant who instead gave the word **buuté** 'viper' (see section §2.4.3).

In these cases of borrowing, we note the semantic shifts from Ometo *'python' to Dullay 'snake', and from Ometo *'snake' to Tsamay 'viper'. See section §5 for an overview of similar shifts in borrowing scenarios.

2.8 Conclusion on East Cushitic

For the conclusion on the Omo-Tana languages, I refer to section §2.1.12.

Overall, it is striking to observe that the lexical diversity we observed in Omo-Tana also occurs at a higher level. Different roots for snakes are found across subbranches of East Cushitic. An exception is Proto Dullay ***baf-** 'python' which is identical to Proto Sagan ***baf-** 'python' from may it may be borrowed, as the latter reconstructs to Proto Central East Cushitic ***baf-** 'python'. We have also reconstructed a root ***warr-** 'python' to Proto Northern Highland East Cushitic which finds isolated correspondences in Afar **warru** 'snake' and Bayso **waarre** 'black snake', though it is unclear whether these result from common inheritance or borrowing between these branches.

Intriguingly, a link to the Saho-Afar root ***aroor-** 'snake' is found in Aasax (**araroo-k** 'snake' or **aroroo-k** 'python', depending on the source), an extinct South Cushitic language. It is also in this language that we find an item **tùdə̰̃ːfòʳ** (presumably **tuduufo**) 'snake' matching somewhat in form with Oromo **ɗuɗuufa** 'giant snake'.

While the proposed Proto Central EC root ***maag-** 'snake' does not clearly relate to other East Cushitic roots, I have suggested potential cognacy with Somali **mąag** 'to avoid something out of fear' which I would take be the more archaic meaning. This would parallel the hypothesis that Proto Omo-Tana ***mas-** 'snake' developed from Proto East Cushitic ***mas-** 'fear, dread'.

In section §2.5 I have proposed a Proto East Cushitic root ***gawʔ-** 'python', revising Ehret's (1991) earlier proposal, supported by regular sound correspondence between Oromo **jawwee** 'python' and Afar **gawi** 'python', as well as with Arbore **ŋawʔ** 'crocodile', although the position of the velar nasal in historical phonological remains obscure.

A root ***buut-** 'puff-adder' is widely found in the Cushitic languages of southwestern Ethiopia as **buute**, but the source of this wide diffusal remains unclear, as the prime candidate, Oromo, has a different final vowel.

With the exception of Kambaata and Alaaba, all Highland East Cushitic words for 'python' are borrowed from Oromo, or in the case of Burji **bofi** 'python' perhaps rather from Konso

pofa ‘python’. In section §2.6, I have proposed a scenario for the historical development of snake-related roots, supported by loans into the Gurage languages at the Proto Northern HEC stage.

It is unclear whether the Proto HEC root ***hamas-** ‘snake’ bears any connection to Proto Eastern Omo-Tana ***abees-** ‘viper, puff-adder’, Afar **abeesa** ‘viper’, and Bayso **habessa** ‘snake’. As for the Afar word, it is not clear whether it is an inherited cognate to or borrowed from Somali **abeeso**.

Dullay ***daww-** ‘snake’ remains anomalous within East Cushitic for which I propose the hypothesis that it may be borrowed from Ometo ***daw-** ‘python’.

A further summary of the findings in East Cushitic is given in section §4.1.

3. Omotic

In order to provide clarity concerning genealogical relationships between the Omotic languages, I present an adapted branching structure of the Omotic family, adapted from Fleming (1976; 1988), Bender (1987; 2000; 2003; 2007), Hayward (1990), and Azeb (2012; 2017). In this scheme, I have indicated alternative names for the various languages and branches to alleviate the confusion that the body of literature on Omotic has left us with. The scheme is presented in figure 8 on the next page.

I have adopted a revised nomenclature for the Omotic sub-branches. I opt for "Maji" (following Aklilu 2003, Beachy 2005: 5, Güldemann 2018: 336, among others) instead of the term "Dizoid" which is frequently seen in the literature. "Dizoid" is quite an unfortunate term as it favours a single language (Dizi) and has the suffix -oid which can carry unintended racial or political connotations of superiority of a single group when used outside of academia (imagine calling Semitic "Araboid" or "Israeloid", or Romance "Italoid"). "Maji" is the name of the plateau where currently the Dizi people reside, and which is considered by the Maji-speaking peoples to be their original homeland (Aklilu 2003: 59, Lange 1975). In a similar vein, I refrain from using "Kefoid" and suggest reviving the term "Gonga" which has already been used in linguistics (e.g. Moreno 1940, Fleming 1987) and which has a historical basis (see Lange 1982). The term "Mao" is furthermore preferred over "Maoid" and derives from the word for 'person' in these languages. Lastly, the South Omotic languages have alternatively been called "Aroid" or "Ari-Banna" (as in Lamberti 1993 and Güldemann 2018). The issue with the first term should be clear, also for the reason that the language is in fact known as "Aari" (and the latter rather as "Banne"). These individual varieties were thought to be somehow representative of the entire linguistic unit, yet they denote two adjacent languages of the core branch of South Omotic which does not include Dime. The terms "Aroid" and "Ari-Banna" are employed especially by those skeptical of the Omotic affiliation of this group of languages in order to avoid association with "Omotic proper" (e.g. Lamberti 1993; Theil 2012; Moges 2015; Güldemann 2018). I find the Omotic hypothesis a plausible one, and this will be tested in the following sections.

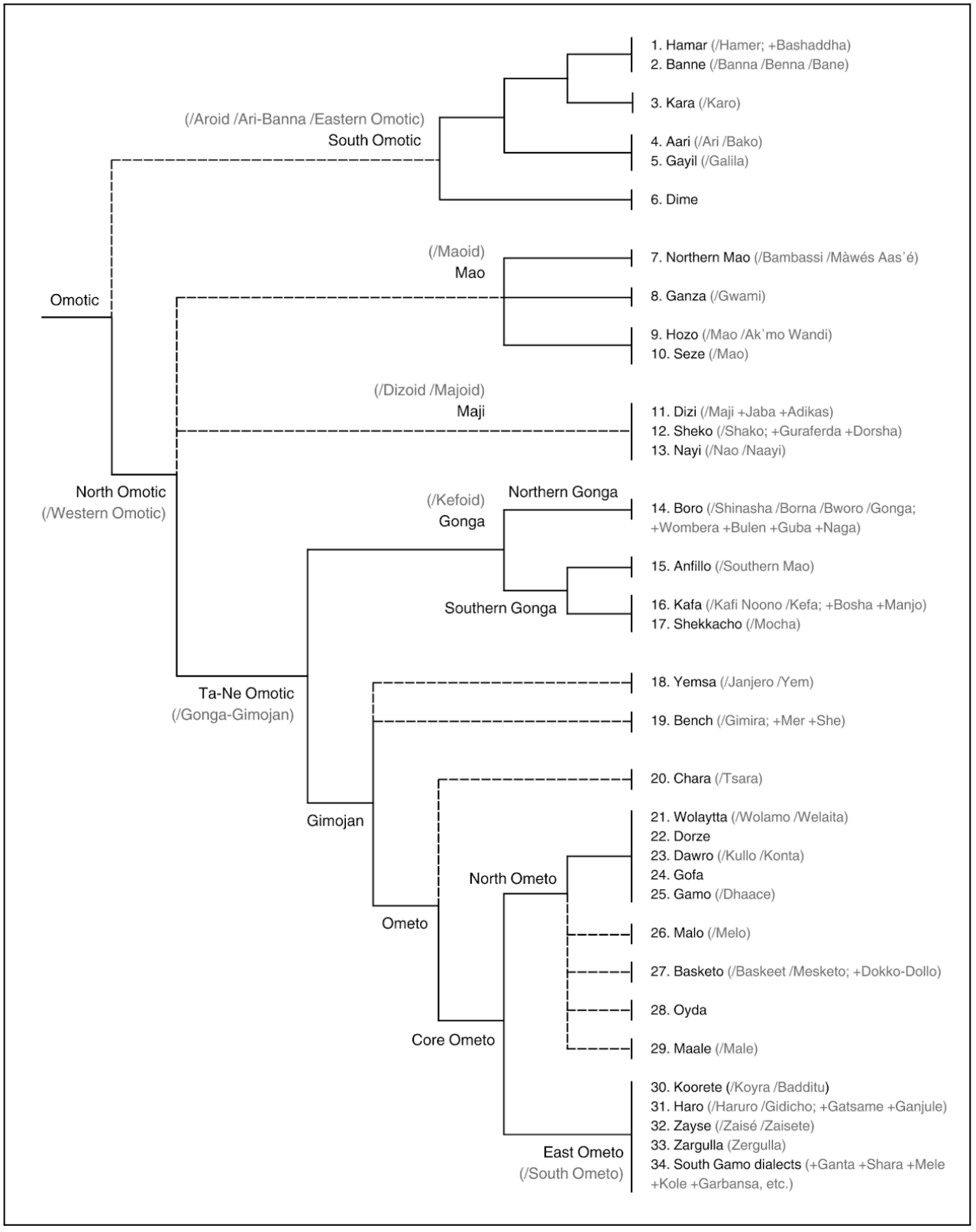


Figure 8. Omotic subclassification tree diagram.

NB: Dotted lines indicate an uncertain position in the genealogy. Proximity on the vertical axis does not indicate closer genealogical relatedness. Outdated and alternative names for genealogical nodes and individual languages are shown after a /slash. Dialects are indicated by a + sign.

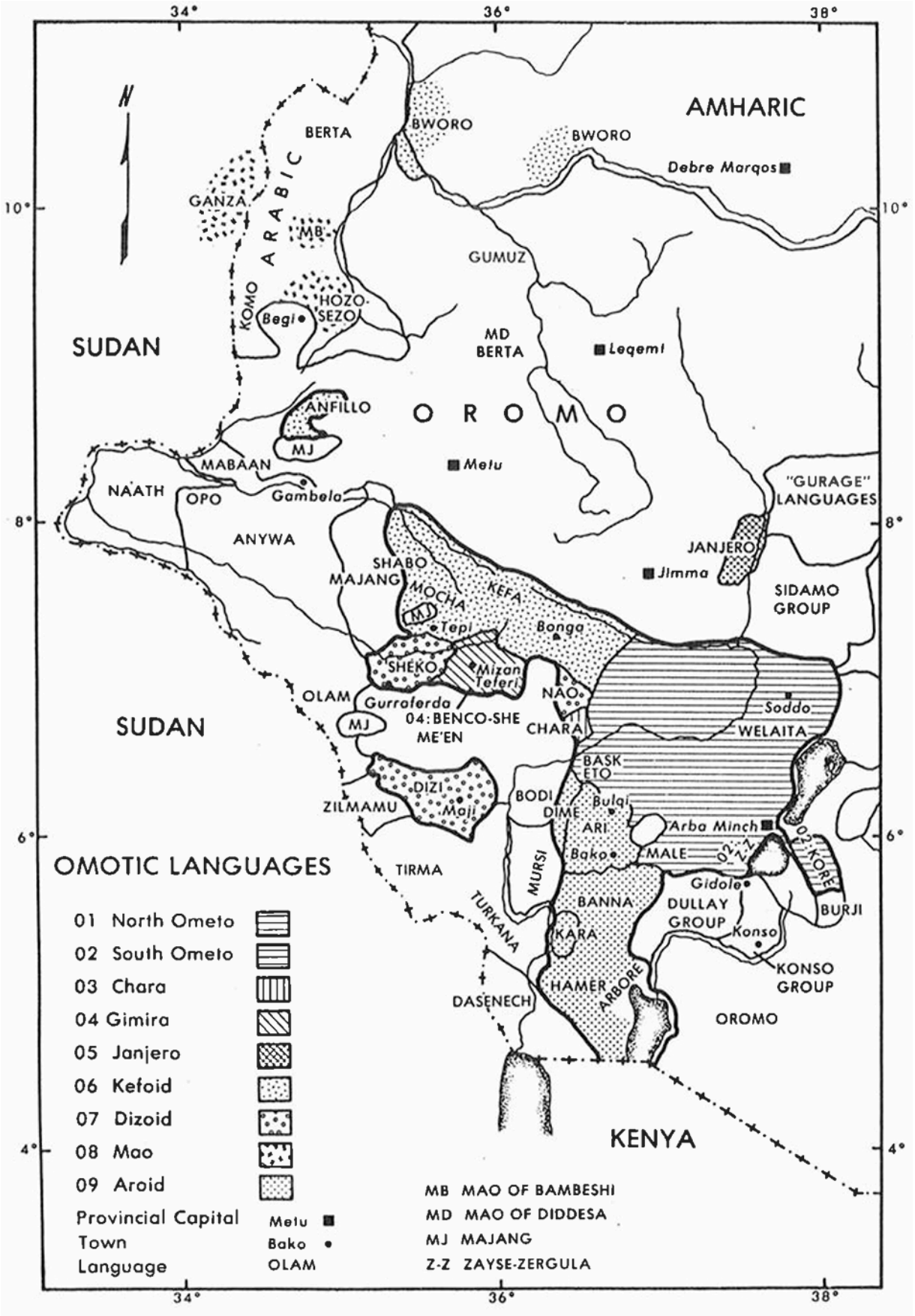


Figure 9. Map of the Omotic languages, taken from Bender (1988).

NB: Some labels differ from the ones in contemporary use. For instance, "Mocha" is Shekkacho, "Janjero" is Yemsa, "Welaita" is Wolaytta, "Nao" is Nayi, "Kore" is Koorete, "MB" is Northern Mao, and "South Ometo" is what I call East Ometo. See figure 8 for the labels used in this thesis and for the listing of alternative labels.

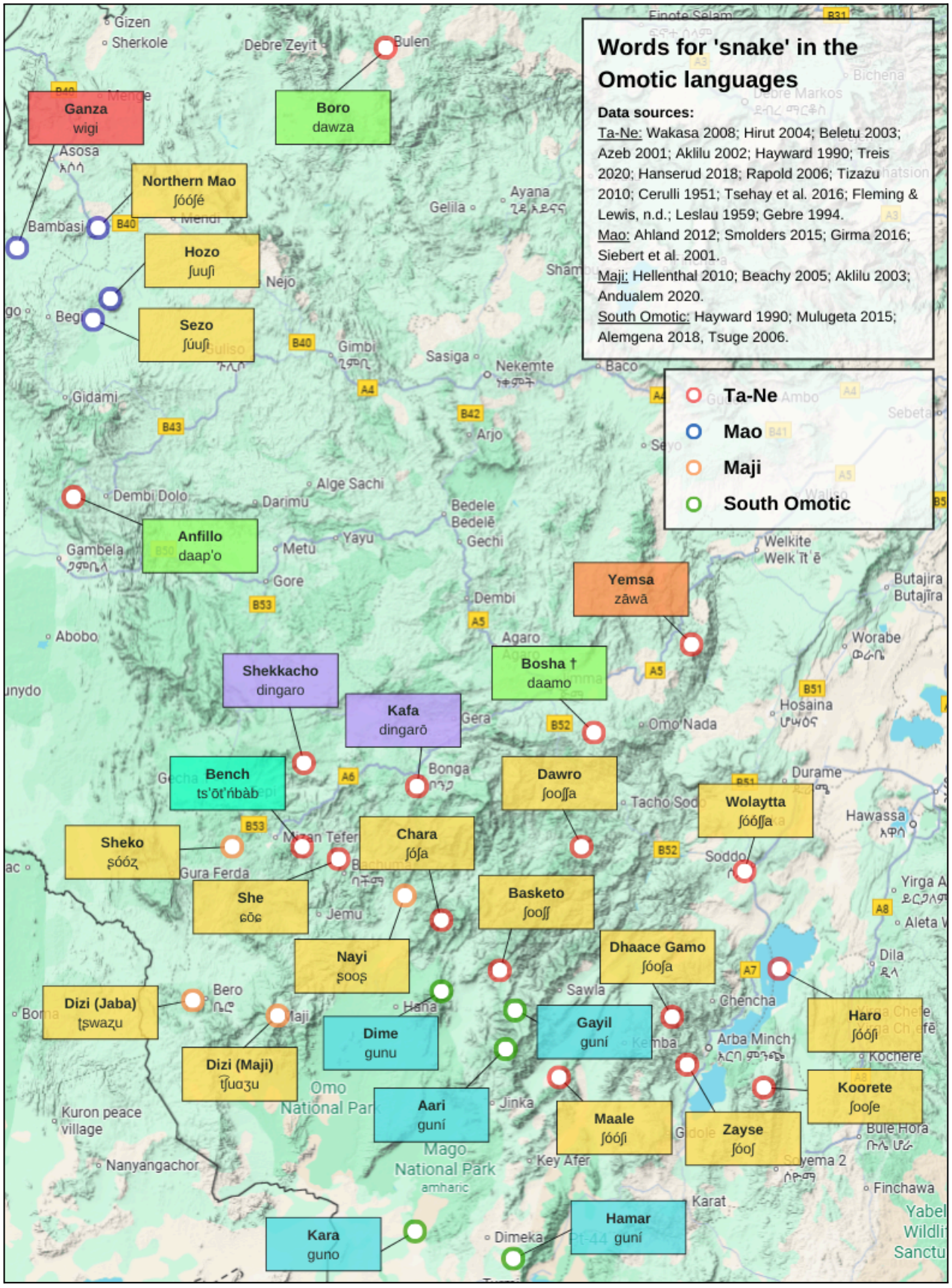


Figure 10. Map of the words for 'snake' in selected Omotic languages.

NB: Transcriptions have been standardised, so that <š> and <sh> are changed to ʃ, and so forth. Not all Omotic languages and dialects are included in the map (in particular not all Ometo varieties), although all roots for 'snake' are represented. Sets of related forms are colour-coded. Genealogical subgroups have their location marker colour-coded, indicated in the legend.

3.1 North Omotic: *ʂooʐ- ‘snake’

A widely attested Omotic root for ‘snake’ is the very tentatively reconstructed ***ʂooʐ-**. The exact reconstruction depends on the historical phonological analysis of the Omotic sibilant sets. The table below lists cognates across Ometo and Gimira of the Ta-Ne branch, Maji, and Mao. The root is not found in Gonga, Yemsa, and South Omotic.

Proto Omotic ***ʂooʐ-** ‘snake’	(own reconstruction)
Ometo	
Wolaytta **shóóshsha** ‘snake’	Wakasa 2008
Chencha Gamo **šóšši** ‘snake’	Hayward & Eshetu 2014
Dhaace Gamo **ʃóóʃa**	(own data)
Zayse **šóoš** ‘snake’	Hayward 1990
Koorete **šooše** ‘snake’	Beletu 2003
Ganta **ʃoóʃu** ‘snake’	Sintayehu 2017
Malo **šooš** ‘snake’	Mahder 2003
Maale **ʃóóʃi** ‘snake’	Azeb 2001
Basketo **shoossh** ‘snake’	Treis 2020
Chara	
šóša ‘snake’	Aklilu 2002
šoša ‘snake’ (Dialect “A & B”)	Cerulli 1938
šōsā ‘snake’ (Dialect “C”)	Cerulli 1938
Gimira	
Bench	
ɕoɕ ‘snake’	Tekle 2015
šoš ‘snake’	Bender 1969 [Bender 2003]
She **ɕōɕ** ‘snake’	Tizazu 2010
Maji	
Proto Maji ***ʂoʐ-** ‘snake’	Aklilu 2003
Proto Maji ***ʂooʐ-** ‘snake’	(own reconstruction)
Central Dizi **cwažu 22** /tʃʷāʒū/ ‘snake’	Allan 1976
Eastern Dizi **čʷažu** /tʃʷaʒu/ ‘snake’	Aklilu 2003
Western Dizi **ʂʷaʐu** /ʈʂʷaʐu/ ‘snake’	Aklilu 2003
Sheko **ʂooʐ 44** ‘snake’	Hellenthal 2010
Nayi **ʂooʂ** ‘snake’	Andualem 2020
Mao	
Northern Mao	
ʃó:ʃé ‘snake’	Ahland 2012
sò:ʃɛ ‘snake’	Siebert et al. 2002b
šɔ:žɛ ‘snake’	Bender 1971
Hozo **ʃu:ʃì** ‘snake’	Siebert et al. 2002a
Sezeɪ **ʃú:ʃî** ‘snake’	Siebert et al. 2002a

Table 62. Reflexes of a Proto Omotic root ***ʂooʐ-/*ʃooʃ-** ‘snake’

While in most cases C1 and C2 are identical, the few cases where they differ may be crucial for our reconstruction of the Proto Omotic form. For Ometo, a reconstruction of ***ʃooʃ-** would seem justified, but the geminated C2 in Wolaytta, Chencha Gamo and Basketo as well as the **s** in Chara’s “C” dialect (Cerulli 1938: 176) may point to C2 originally being different. This is most clearly seen in the Maji languages, thought to be the earliest split-off from North Omotic (Fleming 1976), for which Aklilu (2003: 74) reconstructs ***ʂoʐ-** ‘snake’ with a retroflex set of sibilants. In recent years, more accurately transcribed data for the Maji languages have become available which suggest a reconstruction ***ʂooʐ-** ‘snake’ is better warranted. In Dizi, the retroflex consonants are uniquely preserved in the western dialect of Jaba. Dizi affricates in C1 commonly correspond with initial sibilants in the Maji languages. The Gimira languages Bench and She also have a aveolo-palatal sibilant in **ɕoɕ** (corresponding to retroflexes in Maji), yet unlike the Proto Maji form (also note that Gimira

has lost phonemic length contrast). This contradicts Theil's (2012: 373-374) conjecture that "Dizoid [i.e. Maji] languages are most probably non-Omotic languages with many loanwords from Bench". The presence of this additional set of sibilants in these languages may require us to reconstruct a retroflex set for Proto Omotic, as already carefully suggested by Hayward (1988: 271, 294). One wonders whether the Northern Mao forms **sò**:**ʃɛ̀** (Siebert et al. 2002b: 24) or **šɔ**:**žɛ** (Bender 1971: 275) reflect an archaism. Curious is the contrast with the form **ʃó**:**ʃé** 'snake' found in Ahland (2012), which is of course a far more reliable source but which may not capture the full scope of variation that exists within the language. The former, as well as Chara "C" **šōsā** 'snake' oddly defy the condition of sibilant harmony (requiring sibilants in a word to agree in palatality) which Hayward (1988: 287) suggests must have been operational at the Proto Omotic level. In summary, I tentatively propose ***ʂooʐ-** 'snake' for Proto Omotic, contra Bender (2003: 304) who poses Proto Omotic ***šoš-** 'snake'.

In terms of semantics, there is little of interest regarding this root. What may be noted though, is the fact that the Bench for **ɛoɛ** was only found in the two sources shown in the table. Important sources such as Breeze (1990) and Rapold (2006), as well field notes by Fleming (n.d.) and Bender (1969), report a different word for 'snake' (**tsʾōtʾń-bàb** ~ **tsʾōbḿ-bàb**) which I show to be an innovation (discussed in section §3.8).

The Ometo root ***ʃooʃ-** 'snake' has been borrowed into Tsamay (East Cushitic; Dullay) as **šoš-ko** 'viper' (in Hayward 1989), possibly from neighbouring Maale which has **ʃóóʃi** 'snake'.

3.2 Omotic: *dab- 'wild animal'

In this larger section, I present evidence for the reconstruction of Proto Omotic ***dab-** 'wild animal'. I start off by reconstructing the word for each of the subbranches, and combine the evidence to arrive at Proto Omotic ***dab-** in section §3.2.9.

Bender (2003: 251) reconstructs this root as ***daw-** 'python' for Proto TNDA (Ta-Ne + Dizoid + Aroid), only leaving out the Mao branch of Omotic. The inclusion of South Omotic ("Aroid") in this set is solely based off of a single item in Dime. In section §3.2.3, I will discuss the problems with this item in Dime and propose an alternative reflex of this root in South Omotic. Problems with the Proto Maji reconstruction ***däwu** 'python' proposed by Aklilu (2003: 78) are discussed in section §3.2.2, where I argue that the Maji root should be considered as a borrowing from Ometo.

3.2.1 Ometo: *daw- 'python'

For the Ometo group of the North Omotic Ta-Ne branch, I reconstruct ***daw-** 'python' based on the following attestations:

Proto Ometo ***daw-** 'python'	(own reconstruction)
North Ometo	
Wolaytta **dáwwiya** 'python'	Firew Elias, p.c.
Dhaace Gamo **dáwe** 'python'	(own data)
Basketo **dawa** '[...] python'	Treis 2020
Oyda **dawwe** 'python'	Fleming 1971 [Bender 2003]
East Ometo	
Zargulla **dawé** 'python'	(own data)

Table 63. Proto Ometo ***daw-** 'python'

It is not clear to me what conditions the gemination (or degemination) of medial **-ww-/-w-**. The final vowels are disregarded here as they tend to behave independently of the roots, rather fulfilling a grammatical function (Hayward 1987).

I argue that Chara **doʔa** 'python' is not connected to this set, and is rather cognate to Core Ometo forms such as Wolaytta **dóʔa** 'wild animal' and Baskeet **doʔ-** 'to sit, to live, to be located' (see section §3.4). Because Chara thus innovated a root for 'python', we can assume that ***daw-** 'python' existed at the Proto Ometo level.

3.2.2 Maji: *daw- 'python'

Aklilu (2003: 78) reconstructs ***däwu** 'python' for Proto Maji based on Dizi **däwu**, Sheko **däwá**, and Nayi **doʔu**. I find the status of the central vowel quite dubious and prefer to reconstruct ***daw-** instead. The following list compiles varying transcriptions from a couple of other sources. The numbers indicate tone levels. Dizi is reported to have three tones (Beachy 2005: 14), while Sheko has four (Hellenthal 2010: 111).

Maji	
Proto Maji	
***däwu** 'python'	Aklilu 2003
***daw-** 'python'	(own reconstruction)
Dizi	
dow[32] 'python'	Beachy 2005
dawa 'python'	Fleming, n.d. [Bender 2003]
däwu 'python'	Aklilu 2003
Sheko	
də́wà 'python'	Hellenthal 2010
däwa[23] 'python'	Aklilu 2003

Table 64. Maji ***daw-** 'python'

The Nayi form **doʔu** is irregular, as already noted by Aklilu (2003: 78), in having a glottal stop in place of Proto Maji ***-w-**. In section §3.4, I show that this word is best regarded as a borrowing from the neighbouring Chara language (which has **doʔa** 'python').

The relation of Proto Maji ***daw-** 'python' to Proto Ometo ***daw-** 'python' is in my view one of borrowing. Medial ***-w-** in Ometo regularly corresponds to medial ***-b-** in Maji. For example, Gamo **zawá** 'boundary', Sheko **záábá** 'line'; Gamo **cʼúwa** 'smoke', Sheko **ʦʼubu 44** 'smoke'. Therefore, we would expect the Maji cognate to be ***dab-**, but instead we find a form identical in both form and meaning to the Ometo word, suggesting contact with Ometo at the Proto Maji level (however shallow that is).

3.2.3 Dime: dawú 'python'

Of the South Omotic languages, Bender (2003: 215) found only Dime to have a reflex of his Proto TNDA (i.e. all of Omotic except Mao) root ***daw-** 'python':

South Omotic	
Dime	
dááu 'python'	Fleming 1972b [Bender 2003]
dawú 'dragon'	Mulugeta 2008
dawwú 'python'	Mulugeta 2015

Table 65. Dime 'python'

Looking at Dime phonology, the word is aberrant in having the medial segment **-w-**. Only one other word in Mulugeta's (2015) Dime dictionary and (2008) grammar has a medial **-w-**, namely **gawwu** 'hookworm', which I already identified as a probable borrowing from an East Cushitic language having the ***gawʔ-** 'python/snake' root, possibly Proto Central East Cushitic ***gaww-** 'python/snake'. It is likely therefore that **dawwú~dawú** 'python' is also a borrowing. Candidates are Ometo (***daw-**) and Maji (***daw-**) languages, both of which Dime has been in intense contact with.

The other South Omotic languages all have a different word for 'python':[63]

South Omotic	
Gayil **kʾari** 'python'	Bender 1994
Aari **qari** 'python'	Kaneko & Shigeta 2023
Hamar **qáari** 'python'	(own data)
Kara **kʾaro** 'python'	Alemgena 2018

Table 66. South Omotic 'python'

3.2.4 South Omotic: *dab- 'wild animal'

In this section, I propose the South Omotic root ***dab-** 'wild animal' which I argue is cognate to Ometo ***daw-** 'python'. We find the following attestations of this root in South Omotic:

Proto South Omotic ***dab-** 'python'	(own reconstruction)
Aari **debí** 'wild animal'	Bender 1994
Hamar **dabí** 'wild animal'	(own data)
Kara **dabi** 'wild animal'	Alemgena 2018

Table 67. South Omotic ***dab-** 'wild animal'

The vowel **-e-** in Aari can be regarded as a secondary development. It appears to be an ongoing sound change as we find variation between **-a-** and **-e-** across sources.

Regarding the semantic link between 'wild animal' and 'python', I have already demonstrated a semantic link between 'wild animal' and 'snake' in the case of Proto Eastern Omo-Tana ***bahal** 'wild animal' and **bahal** 'snake' in Southern Somali varieties. The same link is also convincingly found in Ethiosemitic, where Tigre has **awre** 'snake' where the other Ethiosemitic languages have 'wild animal' for this root, such as Ge'ez **arwe** (see Leslau 1987: 40).

The change from 'wild animal' to 'python' specifically is clearly seen nearby in Chara **doʔa** 'python' where North Ometo and East Ometo have **doʔa** 'wild animal'. The change from 'wild animal' to 'python' in this case cannot have gone through an intermediate stage of 'snake' given that a root for 'snake' ***ʃooʃ-** is robustly attested in Ometo and preserved in Chara.

As I show in this thesis, the directionality of the semantic change is from 'wild animal' to 'snake/python' and never the other way around. If we accept that South Omotic ***dab-** 'wild animal' is cognate to Ometo ***daw-** 'python', it would imply that South Omotic preserves the

[63] This root is also present in Maale (Ometo) **kʾárro** 'python' (Azeb 2001: 39) and has to be considered a borrowing from South Omotic. The gemination of the **r** is difficult to explain. It might be that Maale borrowed the feminine inflected form **qárro** 'the python:F' from Hamar or Banne.

original meaning of ‘wild animal’. Given that South Omotic is hypothesised to be the first split-off from Proto Omotic, this would mean that the meaning of ‘python’ developed later in North Omotic.

Because we find no cognate in Dime, the root can technically only be reconstructed to Proto Core South Omotic ***dab-*** ‘wild animal’, i.e. the common ancestor of Aari, Gayil, Hamar, Banne, and Kara. The lack of this root in Dime can be regarded as an innovation. It has **kubob** ‘wild animal’ (Mulugeta 2015: 74), which appears to be a derivation of **kub** ‘forest’ with the masculine gender suffix **-ob** (variant of **-ub**, also as **-ab**). A similar construction is found in the neighbouring Ometo language Basketo, having **maati baz** ‘(wild) animal, mammal’ (Treis 2020: 49), literally ‘grass/bush thing’.

3.2.5 Gonga: *dab- ‘snake’

In the Gonga branch of Ta-Ne Omotic, we find a set of close-knit forms in Boro:

Northern Gonga	
Boro	
dawzà ‘snake’	Lamberti 1993
dówzà ‘snake’	Bergfjord 2013
dawunza ‘snake’	Tsehay et al. 2016
dàwúnz ‘snake’	Bikila 2018

Table 68. Reflexes of Gonga ***dab-*** ‘snake’ in Boro

Interestingly, every source on Boro seems to report yet a different variant of the word for ‘snake’. The **dawza** forms seem to belong to the highland Wombera dialect group, while the **dawunza** forms are characteristic of the lowland Bulen dialect (Wedekind & Lemma 2002: 13), although strangely, both Bikila 2018 and Bergfjord 2013 claim to describe the Bulen dialect. Evidently, a comprehensive dialectological study is needed to understand such isoglosses.

I assume the **-n-** is intrusive before the **z** in Wombera Boro. In relation to the root ***daw-***, I take that **-za** must be a suffix that emerged only in Boro, commonly found in animal terms. It becomes clear when we compare cognates in Kafa, of the South Gonga branch:

Boro (Tsehay et al. 2016)	Kafa (Daniel 2019)
gawunza ‘buffalo’	**gaho** ‘buffalo’
máánza ‘calf’	**maami** ‘calf’
miinza ‘cattle’	**miimi** ‘cow’
zaanza ‘fly (n.)’	**yaamo** ‘fly (n.)’

Boro medial **-w-** derives from earlier ***-b-** which is preserved in the other Gonga languages, e.g. Boro **àawa** 'sun' vs. Kafa **aabo** 'sun'. This is confirmed by the fact that Ethiosemitic loans containing singleton medial **b** are found with **w** in Boro, e.g. **shawata** 'seven', from Amharic **säbatt** 'seven'. In Anfillo and Shekkacho, we find forms related to Boro **daw(z)-** 'snake' root:

Southern Gonga	
Anfillo	
daapʾo 'snake'	Gebre 1994
dapʾō ~ dabō 'snake'	Grottanelli 1940
Shekkacho	
dämo 'python'	Leslau 1959
Bosha †	
daamo 'snake'	Fleming & Lewis, n.d. [Bender 2003]

Table 69. Reflexes of Gonga ***dab-** 'snake' in Southern Gonga

We do not quite find the **-b-** which we would expect, but the semantics indicate that these words indeed originate from the same Gonga stem. The data on both Anfillo and Shekkacho are far from reliable and obviously much research into these languages as well as a study of comparative Gonga phonology is needed.

Looking for a cognate with medial **-b-** in Kafa brings us to the following:

Southern Gonga	
Kafa	
dábbō 'cord, knot, rope'	Reinisch 1888
dabbō 'snare trap; hunting'	Cerulli 1951
dabbo 'hunting net'	Theil 2007

Table 70. Potential Kafa reflex of Proto Gonga ***dab-** 'snake'

It fits the pattern we have seen elsewhere, with roots for 'snake' shifting to 'rope' or 'thread' (e.g. Oromo **bofa** 'snake' > **bofee** 'thick thread'; Proto Omo-Tana ***mas-** 'snake' vs. Dhaasanac **mas** 'rope'). From the chronology of attestations, it appears that the meaning has further developed from 'rope' to 'hunting net'. This is a common semantic extension. Compare for instance Hamar **záani** denoting both 'rope' and 'net, trap, snare'. The only irregularity here is the gemination of **bb** in Kafa, as opposed to the non-geminated medial consonants in the other Gonga languages. It could be that the gemination arose from the common noun formative suffix **-mo** (Fleming 1976b: 372) which we find throughout the lexicon (e.g. Kafa **keemó** 'three' vs. Boro **keezá** 'three'; Kafa **toommó** 'head' vs. Maale **tooki** 'head' (Kafa data from Theil 2007)).[64] The absence of the word **dabbo** as 'rope, hunting net' in Shekkacho corroborates the idea that **dämo** 'python' is the cognate to this Kafa word.[65] Note that Kafa has a different root for 'python', **darebo**, discussed in section §3.5.

It is unfortunate that the Gonga branch is severely understudied. The more lengthy descriptions of Kafa available to us are outdated and incomplete (Reinisch 1888; Wawrzik

[64] This observation somehow escaped the attention of Fleming (1987: 158) who was reluctant to consider Kafa **cʾammo** 'root' and Boro **tsʾapʾa** 'root' cognate due to the difference in C2.
[65] I find the central vowel phoneme **ä** in Leslau's (1958: 139) analysis of Shekkacho doubtful. The fact that he reports a 7-vowel system is perhaps unsurprising given his background in Ethiosemitic. Such systems are quite rare for Omotic languages. Theil (2007: 198-199) describes a 5-vowel system for the very closely related Kafa language.

1939; Cerulli 1951; Leslau 1959), and only little has been published since (Theil 2007; Tilahun 2009; Theil 2023).

In summary, we can pose Proto Gonga ***dab-*** 'snake' which developed into Boro **daw(-un)-za** 'snake', Anfillo **daap'o** 'snake', Shekkacho **dämo** 'python', and Kafa **dabbo** 'rope, hunting net'. Outside of the Gonga branch, I take it to be cognate to Proto Ometo ***daw-*** 'python' and Proto South Omotic ***dab-*** 'wild animal'. Section §3.2.9 will discuss how the root fits into the internal structure of Omotic.

3.2.6 Yemsa

I here make brief note of Yemsa **zāwā** 'snake' which is not cognate to this root, and instead derives from an Omotic root ***zab-*** 'rope' as I argue for in section §3.3. No cognate to Proto Gonga ***dab-*** 'snake' or Proto Ometo ***daw-*** 'python' was found in Yemsa. Since lexical documentation of Yemsa is extremely scarce, we may expect a cognate to turn up once more material becomes available.

3.2.7 Gimira

The Bench word **dyàh** 'python' (Wedekind 1990) cannot be related to Proto Ometo ***daw-*** 'python' or Proto Gonga ***dab-*** 'snake'. It does not match the expected reflect **-b** in Bench which we find in cognate sets such as Bench **ab 3** 'day, time' vs. Gamo **awá** 'sun' vs. Kafa **aabo** 'sun'. The word rather seems to correspond to Kambaata and Alaaba **dah-iccú** 'python' of the Highland East Cushitic branch, some 250km to the east and does not seem to be attested elsewhere as such. The post-consonantal sequence **-ya-** in Bench fairly regularly corresponds to **-a-** in the rest of Omotic (e.g. **kyan 3** 'dog' vs. Proto North Omotic ***kan-*** 'dog').

The Kambaata and Alaaba words themselves look like they might be borrowings from Ometo. We find medial **-h-** in these languages where Omotic languages have **-w-**, such as Kambaata **daha** 'reciprocal labour' vs. Boro **dawa** 'working in group' vs. Yemsa **dàwō** 'communal labour group', Kafa **daffo**'communal labour' (cf. Amh. **däbo** 'communal labour', Oromo **daboo**). On the phonological behavior of **-h-** and **-w-** in Kambaata, see Treis (2008: 32-33). These items for 'python' are isolated in HEC against the rest of East Cushitic. The exact relationship between the Bench, Ometo, and Kambaata/Alaaba forms remains unclear.

3.2.8 Mao

In Northern Mao, we attest the word **téwè** 'python' (Ahland 2012: 707). The medial **-w-** is the expected reflex of Proto Omotic ***-b-*** (e.g. **ts'úwé** 'smoke' < PO ***c'ub-*** 'smoke'; **awè** 'day; God' < PO ***ab-*** 'sun'). However, there is no sound correspondence between Northern Mao initial **t** and **d** in the rest of Omotic, and rather corresponds to **t** (e.g. N. Mao **túgé** 'foot' vs. Maale **tóki** 'foot'; N. Mao **to:kè** 'head' vs. Maale **tooki** 'head'). Therefore, we cannot consider this item in Mao a cognate. One wonders if **téwè** 'python' rather bears any relation to the verb **téwá** 'to straighten up; to make smooth'.

3.2.9 Proto Omotic: *dab- 'wild animal'

In the previous sections I have argued for the following low-level reconstructions:

Proto Omotic: ***dab-*** 'wild animal'	(own reconstruction)
North Omotic	
Proto Gonga ***dab-*** 'snake'	(own reconstruction)
Boro **daw.za** 'snake'	Lamberti 1993
Kafa **dabbo** 'rope; hunting net'	Theil 2007
Shekkacho **dämo** 'python'	Leslay 1959
Anfillo **daapo** 'snake'	Gebre 1994
Proto Core Ometo ***daw-*** 'python'	(own reconstruction)
Wolaytta **dáwwiya** 'python'	Firew Elias, p.c.
Zargulla **dawé** 'python'	(own data)
Basketo **dawa** 'python'	Treis 2020
South Omotic	
Proto Core South Omotic ***dab-*** 'wild animal'	(own reconstruction)
Aari **debí** 'wild animal'	Bender 1994
Hamar **dabí** 'wild animal'	(own data)
Kara **dabi** 'wild animal'	Alemgena 2018

Table 71. Suggested reflexes of the proposed Proto Omotic root ***dab-*** 'wild animal'

The correspondence of Gonga and South Omotic medial **-b-** and Core Ometo **-w-** is regular and can be seen as a result of lenition into Proto Core Ometo. The same regularity is seen in the word for 'smoke' (for which Bender 2003: 304 reconstructs ***c'ub-*** 'smoke', cf. Wolaytta **c'úwa**, Hamar **c'úba** 'smoke') and in the Proto Omotic reconstruction ***zab-*** 'rope' which I propose in section §3.3.

I suggest the following development of the root in Omotic:
Proto Omotic ***dab-*** 'wild animal' developed into Proto Ta-Ne Omotic ***dab-*** 'python' and subsequently yielded Proto Gonga ***dab-*** 'snake' and Proto Core Ometo ***daw-*** 'python'. This concurs with a common unidirectional semantic development from 'wild animal' to 'snake' observed in this study. A direct change from 'wild animal' to 'python' is clearly observed in Chara (see section §3.4). The meaning 'python' must be postulated for Proto Ta-Ne ***dab-***, since we have already firmly established the inheritance of a Proto Omotic root ***ʂooʐ-*** 'snake' into Ta-Ne. In Kafa, the root ***dab-*** 'snake' further developed into the 'rope, net'.

The root does not appear to be inherited in the Maji branch. I have argued that Proto Maji ***daw-*** 'python' is likely a loan from Ometo, as it does not exhibit a regular sound correspondence. We would rather expect the medial in Maji to be reflected as **-b-**.

Now, I would like to briefly discuss here the possibility of relating Sheko **daab L**[66] 'to create' to our set of proposed cognate forms (data from Hellenthal 2010). The long vowel in Sheko is not unexpected, as we observe a number of correspondences that correspond to a short vowel elsewhere in Omotic (e.g. Sheko **taamu 33** 'fire' vs. Proto Ta-Ne ***tam-*** 'fire'; Sheko **k'yaaf** H 'to kick' vs. Boro **k'ápa** 'to kick' vs. Hamar **qapá** 'to kick with the footsole'). The issue here is in the meaning of the word. The meaning 'to create' could link to 'wild animal' through a nominalisation yielding 'creature' (cf. Ganta (East Ometo) **méɗo** 'creature' < **méɗɗ-** 'to create'). This change from 'to create' to 'wild animal' requires a full semantic shift, and seemingly one that is irreversible. This would mean that if Sheko preserved the archaic Proto Omotic form and meaning (hypothetically ***dab-*** 'to create', all the other Omotic

[66] The **L** indicates a low-tone verb in Hellenthal's (2010) convention.

branches must have jointly innovated towards the meaning ‘wild animal’ after which Proto Ta-Ne Omotic further innovated the meaning of ‘snake’, which clashes with the universally accepted hypothesis that South Omotic is a primary split-off (among those who accept Omotic as a genealogical unit). Alternatively, both South Omotic and Ta-Ne Omotic innovated the meaning of ‘wild animal’ independently from an earlier sense of ‘to create’, although this would seem quite improbable. Since the possibilities here are too numerous and problematic, I will not include this item in the proposed set of cognates and leave this idea up to future research. An obvious first step would be to reconstruct Sheko **daab L** ‘to create’ to the Proto Maji level. For this, we need more lexical data on Nayi and Dizi.

3.2.10 External links

As shown in section §2.7, the Proto Dullay root ***daww-** ‘snake’ is likely explained as a borrowing from Core Ometo ***daw-** ‘python’.

In Dahalo, a divergent Cushitic language spoken in Kenya’s Lamu district, we find the exact same word for ‘wild animal’ as in South Omotic (e.g. Hamar **dabí** ‘wild animal’):

South Cushitic	
Dahalo **dabi** ‘animal’	Tosco 1991

Table 72. Dahalo **dabi** ‘wild animal’

The Omotic-internal etymology of Hamar **dabí** ‘wild animal’ suggests that the Dahalo item is a loan from Hamar or any prior stage of (South) Omotic, if not a chance resemblance. The item is not found elsewhere in Cushitic.

Also in Kuliak, an isolated cluster of languages in northeastern Uganda, we find a striking resemblance to the Ometo root ***daw-** ‘python’. This resemblance was already noted by Fleming (1983: 464):

Kuliak	
Proto Kuliak ***dɛu** ‘snake’	Heine 1976b
Soo **dɛu** ‘snake’	Heine 1975b
Nyangi **déó** ‘snake’	Beer 2017
Ik **ídèm** ‘snake, serpent’ (?)	Schrock 2016

Table 73. Kuliak ***dɛu** ‘snake’

Direct contact between Kuliak and Ometo is highly unlikely. If not merely a case of chance resemblance, I favour a scenario where Kuliak has obtained this word through contact with a Dullay language. As I have shown in section §2,7, we can reconstruct Proto Dullay ***daww-** ‘snake’, which I consider an Omotic loan. This implies that Dullay-Kuliak contact has taken place after Ometo-Dullay contact, which likely took place in Ethiopia. A transfer from Dullay is more likely in my view not only because the meaning matches better with Kuliak ‘snake’ than Omotic ‘python’, we also know that Yaaku-Dullay must have once spread far across northern Kenya as testified by Yaaku being spoken in the Mukogodo Forest in central Kenya. A historical Yaaku-Dullay presence further towards Uganda is to be considered and may predate the Nilotic expansion. Alternatively, the correspondence is merely coincidental. It must be admitted that drawing links with Kuliak allows for much imagination as little is known about the linguistic history of this isolated group of languages. It would therefore be wise to err on the conservative side in drawing comparisons.

Fleming (1983: 464) claims that Jie (Eastern Nilotic, Karimojong) has the related word **dewa** 'snake', saying that it is most likely borrowed from Kuliak, or alternatively from "unattested Yaaku kindred". I have not been able to confirm the existence of this word through any other source. The closely related languages Karimojong, Teso, and Turkana have a different root for 'snake', **-mun**.

This link begs many questions, which can as of yet not be answered. This link prompts us to search for more lexical correspondences in order to gain an understanding of the history of contact between Kuliak and Yaaku-Dullay specifically, if not Omotic.

3.3 Yemsa: zāwā 'snake'; Omotic: *zab- 'rope'

In this section, I present a new analysis for the diachronic development of Yemsa **zāwā** 'snake'.

The word has been subject to some etymological proposals, none of which I can endorse. Cerulli (1951: 433) linked it to Kafa **darabō** 'python', Anfillo **dabō~daṗō** 'snake', and Oromo **jawwee** 'python', among other items (also Cerulli 1938: 89). Bender (2003: 174) speculated that the Yemsa word could be a borrowing from Oromo **jawwee** 'python'. Fleming (1983: 464) compared it to Proto Kuliak ***dɛu-** 'snake', alongside Oromo **jawwee**, Dullay **dawwo** 'snake' and Basketo **dəwa** 'python'.

I instead propose that Yemsa **zāwā** 'snake' developed from a Proto Omotic root ***zab-** 'rope', supported by regular sound correspondence.

The semantic link between 'rope' and 'snake' is in fact corroborated by a semantic alternation found in another item in Yemsa. What we attest in Zaugg-Coretti (2013: 356) as **pèyà** 'string made of ensete' shows up in Schaumberger (n.d.) as **peya** 'snake' (although unmarked for tone). It is clear that these are the exact same word, as in both descriptions, **peya** is the only word reported to have an initial /p/. Given the highly specific semantics of the word in Zaugg-Coretti (2013), we can be certain that 'snake' is a secondary semantic development.

I start off by reconstructing the word for each of the subbranches, and combine the evidence to arrive at Proto Omotic ***zab-**.

For the closely related Ometo language of the Gimojan group, we can reconstruct a root ***zaw-** 'boundary' based on the following attestations:

Proto Ometo ***zaw-** 'boundary'	
	(own reconstruction)
North Ometo	
Wolaytta **zawá** 'boundary'	Firew Elias, p.c.
Gamo **zawá** 'boundary'	Hayward & Eshetu 2014
Gofa **zawa** 'boundary'	Sellassie 2015
East Ometo	
Koorete **záwa** 'house'	Hayward 1982
Zayse **zawá** 'home'	Yeshimebet 2017
Kole **zawá** 'house'	Samuel 2016

Table 74. Ometo ***zaw-** 'boundary'

A clear semantic split is observed between North Ometo 'boundary' and East Ometo 'house'. A clue to this split is found in Hayward (1982: 264) who mentions that Koorete (East Ometo) lexically distinguishes between a house viewed as an external object (**kéétse**) and a house viewed as a location (**záwa**). While the former finds a cognate in Gamo (North Ometo) **keettsé** 'house', we can consider the latter to be a semantic development from an earlier meaning of 'boundary' as found in the North Ometo branch. The idea is that the word for 'boundary' was used to refer to the perimeter of the homestead which metonymically further developed into 'house, home'. In Kole and Zayse, we also find **keetstsu** and **kéét**s 'house', respectively, besides **zawá** 'house, home' (Samuel 2016; Yeshimebet 2017). In Haro, however, only **záwwa~zááwa~zaa** is attested for 'house' (Hirut 2004; Tsegay et al. 2018).

Based on the other correspondences in Omotic, I take the Proto Ometo root ***zaw-** 'boundary' to have developed from a sense of 'rope; line' at an earlier stage.

In the Gonga branch of Ta-Ne Omotic, we find two potential cognates in Boro:

Gonga	
Boro	
jawa 'to weave'	Tsehay et al. 2016
zaha 'weft'	Tsehay et al. 2016
Proto Gonga ***zab-** 'weft; to weave'	(own reconstruction)

Table 75. Proto Gonga ***zab-** 'weft; to weave' based on Boro attestations

The correspondence between the two words is odd. One would say they are clearly related, yet they do not display the same phonological developments. This problem was already noted by Fleming (1987: 158) who expressed his confusion about the variety of reflexes of Proto Gonga ***z** in the Boro dialects (or Northern Gonga languages):

> "[...] [Northern Gonga] has cognate forms with initial /z/ in Bora and Guba, initial /z/, /j/ or /y/ in Womb[era], initial /ž/, /j/, and sometimes /y/ in [Amuru], and /ž/ or /j/ in Naga."
> —Fleming (1987: 158)

The medial **-w-** in **jawa** 'to weave' suggests an earlier ***-b-** in Proto Gonga (Fleming 1987: 155). The medial **-h-** in **zaha** 'weft' (i.e. the horizontal threads in weaving) could be a further development from medial **-w-**, although there is little supporting evidence for this. Nonetheless, I will propose Proto Gonga ***zab-** 'weft; to weave' as reconstructed from these two attestations in Boro.

In Sheko, of the Maji branch of Omotic, we find a cognate in **zaaba 44** 'line':

Maji	
Sheko **záábá** 'line'	Hellenthal 2010

Table 76. Sheko cognate to Proto Omotic ***zab-** 'rope'

The long vowel seems to be a regular correspondence in Sheko, observed in a number of words where the rest of Omotic has a short vowel (e.g. Sheko **tāāmū** 'fire' vs. Proto Ta-Ne ***tam-** 'fire'; Sheko **k'yaaf H** 'to kick' vs. Boro **k'ápa** 'to kick' vs. Hamar **qapá** 'to kick with the footsole'). We do not find a cognate in the other Maji languages, Dizi and Nayi, but this could be due to the dearth of lexical documentation. Still, we may tentatively reconstruct Proto Maji ***zab-** 'line', awaiting support from further documentation.

Lastly, I recognise the following cognates in South Omotic, which I reconstruct to ***zab-*** 'strength; strong':

Proto Core SO ***zab-*** 'strength; strong'	
Aari **zab-** 'to be strong'	Melkeneh 2014
Hamar **zabí** 'stiffness, immobility'	(own data)

Table 77. South Omotic ***zab-*** 'strength; strong'

There is a clear semantic split between Aari **zab-** 'to be strong' and Hamar **zabí** 'stiffness, immobility. The sound correspondence is fully regular between the two. I take the Hamar meaning to have developed from an earlier meaning of 'strength; strong'.

Compiling the evidence from the individual groupings discussed above, we are now in a position to pose Proto Omotic ***zab-*** 'rope'. I relate this to Proto South Omotic ***zab-*** 'strength; strong' on the basis that such polysemy is precedented elsewhere in the region, namely in Dhaasanac **másа** 'rope; power' (in Ness 2023). The proposed reconstructed reflexes can be shown as follows:

Proto Omotic ***zab-*** 'rope'	(own reconstruction)
Ta-Ne	
Yemsa **zāwā** 'snake'	(own reconstruction)
Proto Core Ometo ***zaw-*** 'boundary'	(own reconstruction)
Proto East Ometo ***zaw-*** 'house, home'	(own reconstruction)
Proto Gonga ***zab-*** 'weft; to weave'	(own reconstruction)
Maji	
Proto Maji ***zab-*** 'line'	(own reconstruction)
South Omotic	
Proto Core SO ***zab-*** 'strength; strong'	(own reconstruction)

Table 78. Proto Omotic ***zab-*** 'rope' and its reflexes

As stated earlier, the reflexes exhibit regular sound correspondences. These will be further elaborated on in section §3.9.

The semantic development I propose is as follows. Given that Yemsa **zāwā** means 'snake', the hypothesised meaning of 'rope' must have persisted into Proto Gimojan, the common ancestor of Yemsa, Gimira, and Ometo. From there, it further developed into ***zaw-*** 'boundary' in Proto Core Ometo, and to ***zaw-*** 'house, home' in the East Ometo branch. Going one stage up, we arrive at Proto Ta-Ne Omotic (alternatively, "Gonga-Gimojan"). From here, the root ***zab-*** 'rope' was passed down into the Gonga branch, ultimately yielding Boro **zaha** 'weft' and/or **jawa** 'to weave'. Given the lack of other Gonga attestations, however, we cannot be sure of the exact semantic reconstruction. Further up, we arrive at Proto North Omotic, of which the Maji branch is a primary split-off. Here we find Sheko **záábá** 'line' which corresponds both in form and meaning to the hypothesised root. At the highest level, Proto Omotic unites the North and the South Omotic branch. The root ***zab-*** 'rope' developed in the latter into ***zab-*** 'strength; strong'. This meaning may already have been present in Proto Omotic, as a polysemous extension of the core meaning 'rope'.

3.4 Ometo: *doʔa ‘wild animal’

The item **doʔa** ‘python’ in Chara can be connected with words meaning ‘wild animal’ in the rest of Ometo. Chara is considered to be the first split off from Proto Ometo.

Ometo	
Proto Ometo ***doʔa** ‘wild animal’	(own reconstruction)
Chara	
doʔa ‘python’	Fleming 1972a [Bender 2003]
dooʔa ‘python’	Mulugeta 2022
North Ometo	
Wolaytta **doʔa** ‘wild animal’	Lamberti & Sottile 1997
Gamo **dóʔa** ‘wild animal’	Hayward & Eshetu 2014
Malo **doʔa** ‘wild animal’	Alemayehu 1994
East Ometo	
Haro **dóʔa** ‘wild animal’	Hirut 2004
Zayse **doʔa** ‘crocodile’ (?)	Cerulli 1938
Maji	
Nayi **dóʔù** ‘python’	Aklilu 1990

Table 79. Chara **doʔa** ‘python’ and Core Ometo **doʔa** ‘wild animal’

We can consider this root to have the original meaning of ‘wild animal’. This is substantiated by the fact that there exists an Ometo root ***doʔ-** ‘to sit; to live; to exist’ which is found in Chara as **doʔá** ‘to live’ (Mulugeta 2022) and Basketo **doʔ-** ‘to sit; to live; to be located’ (Treis 2020). It may correspond to Gamo and Wolaytta **deʔ-** ‘to exist; to live’. Potential cognacy with Aari **doq-** ‘to sit; to live; to exist’ and Hamar-Banne **do(r)q-** ‘to sit’ (South Omotic), and Dizi **dog-** (< ***dok’-**) ‘to live’ (Maji) would further corroborate the Omotic inheritance of this root. Such diachronic semantic development is of course common.

The Nayi word **dóʔù** ‘python’ is anomalous within the Maji branch of Omotic and must be regarded as a loan from Chara with which it is in contact. Aklilu (2003: 78) precisely notes Nayi **dóʔù** as the only deviant item in his set of reflexes for Proto Maji ***däwu** ‘python’, for which Nayi is expected to have a medial **w**. It is now clear that ***däwu** and **dóʔù** ‘python’ are chance resemblances entirely.

3.5 Gonga: *darb- ‘python’

We can reconstruct a root ***darb-** ‘python’ to Proto Gonga on the basis of the following attestations:

Gonga	
Proto Gonga ***darb-** ‘python’	(own reconstruction)
Boro	
daruwa ‘python’	Tsehay et al. 2016
darewa ‘python’	Rottland, n.d. [Bender 2003]
Kafa	
darabō ~ darbō ‘python’	Cerulli 1951
dareboo ~ darebo ‘python’	Daniel 2019
Anfillo	
darbí ‘python’	Grottanelli 1940

Table 80. Reflexes of Proto Gonga ***dareb-/*darb-** ‘python’

The reflexes regularly correspond in that Boro has medial **-w-** against the rest of Gonga which has **-b-** (as also seen in section §3.2.5 on Proto Gonga ***dab-** 'snake').

The Gonga word has been loaned into neighbouring languages:

<u>Yemsa</u>	
Yemsa **dərbo** 'python'	Fleming 1972c
<u>Mao</u>	
Hozo **darbi ~ darbí** 'python'	Bender & Atieb 1974
Seze **daldibi** 'python'	Bender & Atieb 1974
<u>Maji</u>	
Nayi **dɛrɛb** 'python'	Fleming, n.d.

Table 81. External relations to Gonga ***dareb-/*darb-** 'python'

If the Yemsa word were a regular cognate, we would expect medial **-w-** rather than **-b-**. The field notes by Fleming (1972) are too sketchy and impressionistic to draw any conclusions on this though. No word for 'python' has been reported elsewhere for Yemsa.

Fleming's undated field notes on Nayi report a different word for 'python' than the one attested in Aklilu (1990), namely **dɛrɛb**. This should be identified as a loan from Kafa **darebo** 'python', especially given the sociolinguistic context of Nayi speakers heavily shifting to Kafa.

In the Mao branch, the Hozo and Seze words for 'python' **darbí** and **daldibi**, respectively, can be regarded as loans from Anfillo or an earlier stage of Gonga, although a loan from Northern Gonga (Boro) is ruled out due to the **-b-**/**-w-** mismatch.

Lastly, we find the following items in Aari and Maale:

<u>South Omotic</u>	
Aari **dorba** 'name of a snake' (= cobra?)	Kaneko & Shigeta 2023
<u>Ometo</u>	
Maale	
dorba 'cobra snake'	Alemayehu & Mulugeta 2018
doórba 'black poisonous snake'	Azeb Amha, p.c.

Table 82. Aari, Maale **dorba** 'cobra'

I take the Maale word **dorba~doórba** 'cobra snake'[67] to be from Aari, from which it appears to have borrowed heavily. Other snake words in Maale are also of South Omotic origin, such as **k'árši** 'small very poisonous snake' (cf. Aari **qarshi**, Hamar **qárshi** 'viper, puff-adder'), **gítse** 'snake sp. with a white stripe below its head' (cf. Aari **gis**' 'python').[68]

The question is whether Aari **dorba** 'cobra sp. (?)' is to be taken as cognate to Proto Gonga ***darb-** 'python', or rather is to be explained through contact. Given the great geographic distance and the fairly regular phonological correspondence, one would favour cognacy. A problem is that this root is not present in Hamar, and has not been attested in Kara and Dime. The strong presence of this root in Gonga plus a single isolated attestation in Aari

[67] I presume the term **dorba** in Aari and Maale refers to the "black-necked spitting cobra" (*Naja nigricollis*) which is found in southern Ethiopia.
[68] I thank Azeb Amha for kindly providing me with her detailed field notes on words for the various snake species in Maale. Aari data was taken from Kaneko & Shigeta (2023).

(and an absence in the rest of Omotic) does not make for a strong case of cognacy. A chance resemblance between Gonga and Aari is not out of the question, and neither is a scenario of borrowing, although this is hard to conceive, also given the semantic difference.

We find forms almost identical to the Gonga root in Gurage:

Omotic	
Proto Gonga ***darb-** 'python'	(own reconstruction)
Kafa **darabō ~ darbō** 'python'	Cerulli 1951
Boro **daruwa** 'python'	Tsehay et al. 2016
Ethiosemitic	
Gurage **däräba** 'python'	Leslau 1979
(Chaha, Ezha, Muher, Mesqan, Gogot)	
Gurage **däräḅa** 'python'	
(Ennemor, Gyeto)	
Gurage **däräwä** 'python'	
(Endegegn)	
East Cushitic	
Oromo **darabii** 'a kind of earthworm'	Gragg 1982

Table 83. Gurage **däräba** 'python'

The Gurage root finds no cognates elsewhere in Ethiosemitic. Leslau (1979: 219) gives the following etymological note:

> "From Ga. [Oromo] **däräba**, Ka. [Kafa] **darabō**. [...]"

The mention of Oromo here is surprising. Leslau does not specify the meaning of the word here, and I assume it would imply that it is 'python'. Browsing through all Oromo dictionaries available to me yields no such word, however. I did come across the word **darabii** 'a kind of earthworm' in Gragg (1982), Xilaahun (2004: 216), and Ibsaa (2004). These three dictionaries mainly describe Wollega Oromo (or Western Oromo) which is the variety spoken in the area which was prior to the 16th century inhabited by Gonga speakers, north of the Gojeb river (Fleming 1984: 34-35; González-Ruibal 2014: 243). The fact that the word is absent from dictionaries of eastern and southern Oromo dialects indicates that this lexical item perhaps originates from a Gonga substrate, shifting in meaning from 'python' to 'a kind of earthworm'.

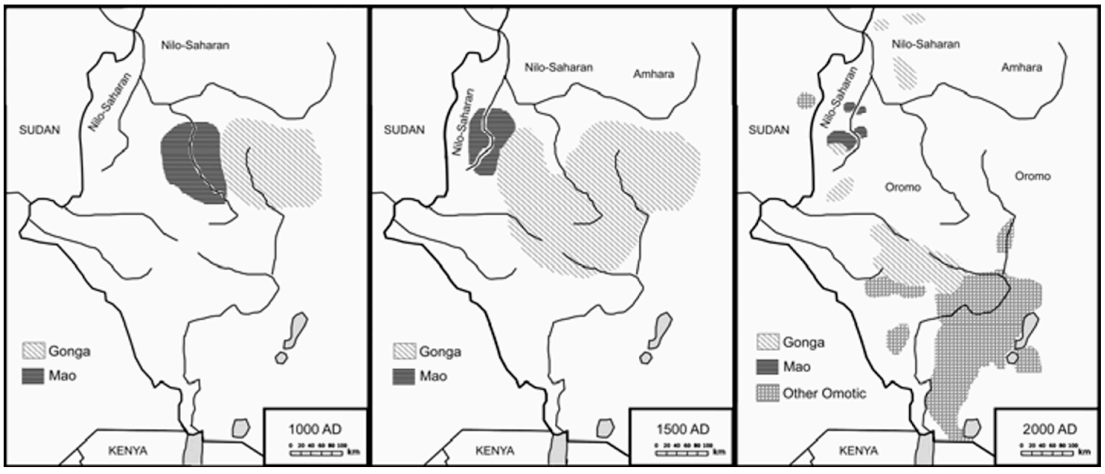


Figure 11. Reconstruction of the historical geography of the Gonga-speaking peoples (González-Ruibal 2014: 244).

3.6 Southern Gonga: dingaro

In section §3.2.5, I have argued that the Proto Gonga word ***dab-*** 'snake' developed into Kafa **dabbo** 'rope; hunting net'. In Shekkacho, it came to mean 'python'. As a consequence, the generic Kafa and Shekkacho words for 'snake' are divergent from the rest of Gonga. We attest the following:

Gonga	
Kafa	
dingárō 'snake'	Reinisch 1888
dingarō ~ dingirō 'snake'	Cerulli 1951
dingeroo ~ dangiro 'snake'	Daniel 2019
Shekkacho	
ˌdiŋgaˈro 'snake'	Leslau 1959

Table 84. South Gonga **dingaro** 'snake'

The origin of this word does not appear to be very clear. We do find the verb **dingiirato** 'to become numb' in Kafa or **diŋgràata(yé)** in Shekkacho, but these rather look like denominal derivations, although the exact morphology at play here is not clear to me.[69]

The word is also found in Bench and Sheko:

Gimira	
Bench **dīngúr** 'snake sp.'	Rapold 2006
Maji	
Sheko **dīngūrù 331** 'viper'	Hellenthal 2010

Table 85. Bench **dingur**, Sheko **dinguru**

The Sheko word I presume is a loan from Bench. The Bench word could either be a cognate or a loan from Kafa, from which it is known to borrow. Since native Bench words tend to be monosyllabic (Rapold 2006: 96), the latter scenario is favoured. The difference in V2 troubles the matter, however.

3.7 Dizi: sukunud 'snake'

Besides **cwažu 22** 'snake', we also find the word **sukunud** as a word for 'snake' in Dizi. In the literature we attest the following:

Maji	
Dizi	
sukunud 'snake'	Beachy 2005
sukuŋudu 'snake'	Muldrow, n.d. [Bender 2003]
tsuku nudu 'snake' (= '...-animal')	Fleming, n.d. [Bender 2003]

Table 86. Dizi **sukunud** 'snake'

I follow up on Bender's (2003: 217) suggestion in analysing the second element of the word as **nudu** '[wild] animal' (< Proto Maji ***nuuťu** 'wild animal'). I take first element of the word to be **t͡suku** 'bark rope'. Based on Sheko **suku 44** 'rope (of ensete)', this can be reconstructed to Proto Maji ***suku** 'rope (of ensete)'. Aklilu (2003: 73) notes a sound change from Proto Maji initial ***s** to Dizi **ts** in two roots, while other roots preserve PM initial ***s**. No conditions for

[69] Adding to this, we also find in Shekkacho the word **ˈdiŋgaro** 'rock' but I would doubt this bears any relation (cf. Proto Agaw ***dangʷər- ~ *dəngʷər-** 'large stone, rock' in Appleyard 2006: 129).

this change are given. The sound change thus seems to be sporadic, and this could explain the the conflicting initials between Beachy's (2005: 24) **sukunud** 'snake' and **t͡suku** 'bark rope', as well as the fact that Fleming recorded **tsuku nudu** 'snake'. The discrepancy in Beachy's (2005) data may also indicate that the compound has ceased to be transparent to speakers.

Overall, it is clear that the word is a compound that can literally be interpreted as 'rope animal'. The question is how the word related to **cwažu 22** 'snake'. It seems that the latter is the basic word, and that **sukunud** 'snake' is an avoidance term. Consultation with Dizi speakers is bound to give us answers to these questions.

3.8 Bench: ts'ōt'ńbàb 'snake'

Lastly, I must discuss the word for 'snake' in Bench, which is most commonly reported as **ts'ōt'ńbàb** and its many variants. Another generic word for 'snake', **ɛoɛ**, does appear in some sources but is uncommon. The following forms are attested:

Gimira	
Bench	
ts'onbɛt 'snake'	Fleming, n.d. [Bender 2003]
s'odnmɛt 'snake'	Bender 1969 [Bender 2003]
ts'ōdńbàb 'snake' ~	Wedekind 1990
ts'ōdńbàt 'snake'	Wedekind 1990
ts'ōbḿbàb /ts'obmbab/ 'snake'	Breeze 1990
ts'ōt'ń-bàb 'snake' ~	Rapold 2006
ts'ōbḿ-bàb 'snake'	Rapold 2006
xsoxnbat /ts'ot'nbat/ 'snake'	Tekle 2015

Table 87. Bench **ts'ōt'ńbàb** 'snake' and its attested variants

Rapold (2006: 213) mentions the composite nature of the word, identifying the latter element as **bab 2** 'father; owner', commonly found as part of words denoting animals. He crucially identifies the first element of the word as **ts'ot' 4** 'wild animal' and notes the following:

> "Especially interesting [...] is the word for 'snake' **ts'ōt'ń-bàb ~ ts'ōbḿ-bab** because its first element is possibly cognate with the synchronic word **ts'ót'** 'wild animal' that has a different meaning than the compound as a whole, unlike cases like **génʒú-bày ~ génʒ** 'dikdik'. Assuming that **ts'ót'** goes back to ***ts'ot'ń** would predict as original, literal meaning of the etymon of **ts'ōt'ń-bàb** something like 'owner of the wild animals', which might be a euphemism for 'snake' (cf. the wide-spead taboo on mentioning the word 'snake' at night). [...]"
> —Rapold (2006: 215)

It indeed appears true that **ts'ōt'ń-bàb** 'snake' has lexicalised as a formation consisting of **ts'ót'** 'wild animal' and **bàb** 'father; owner', which is especially clear in the phonologically deviant variants **ts'ōbḿbàb** and **ts'ot'nbat**. I would like to oppose Rapold's (2006: 215) idea, however, that the original, literal meaning of **ts'ōt'ń-bàb** 'snake' was something like 'owner of the wild animals'. We need not consider this specific compound to exhibit different compound semantics than that of other animal vocabulary ending in **-bày** 'mother; owner' if we accept that the snake *is* the wild animal. This is based on the numerous cases treated in the present work where we observe direct semantic links from 'wild animal' to 'snake'. It thus

would seem more plausible to assume that **bàb** has an honorific function in this compound rather than a possessive one, by which it distinguishes the snake from any unspecified wild animal.[70] On the difference between the use of **-bàb** 'father' and **-bə̀y** 'mother' in compounds, Rapold (2006: 214) notes:

> "It may be noted that while masculine is the default gender, compositions with **bə̀y** are more numerous than those with **bàb** in the lexicon. This could be an effect of the diminutive connotation of the feminine gender [...]: most of the animals in the [...] lists are small [...].
> —Rapold (2006: 214)

The use of **bàb** rather than **bə̀y** in the case of **ts'ə̄t'ə́n-bàb** may be related to the danger of snakes. It would be unwise to convey any sense of diminution when talking about snakes! Indeed, none of the animals listed by Rapold (2006: 214) containing the element bə̀y 'mother' are particularly dangerous.[71]

3.9 Conclusion on Omotic

In the foregoing sections, I have attempted to provide a nuanced analysis of a set of snake-related roots in the Omotic languages. I have reconstructed proto forms and fleshed out the degrees of language contact. The picture that emerges contrasts with earlier attempts at the etymology of these Omotic roots. For instance, Cerulli (1951: 433) linked Kafa **darabō** 'python' to a variety of languages in a quite imaginative way (translation mine):[72]

> "The word is from common Cushitic, preserved as a triliteral, as in Kafa, in: Agaw: Bilin **sabarā**, Khamtanga **sibrā**; in Beja **emğafar**; reduced to biliteral in Northern Sidama [=Omotic]: Giangerò [=Yemsa] **zawā**; Western: Anfillo **dabō**, **daḍō**; and in Lower Cushitic: Galla [=Oromo] **ğawē**. The transition, regular in the Cushitic, of **z** > **d**, which is noted in Kafa and Anfillo may depend on a secondary change by assimilation from the etymological root **sabar** (attested in Agaw). However, Giangerò [=Yemsa] contributes to attesting the antiquity of the presence of **z** in Sidama."
> —Cerulli (1951: 433)

It should by now be clear that Kafa **darabō**, Yemsa **zāwā**, Anfillo **dabō**, and Oromo **jawwee** each have their own histories and bear no relation to each other, nor to the other Cushitic forms that Cerulli mentions here.

In a similar manner, Bender (2003: 233) excessively lumped together various roots:

> "[The item 'python'] is problematical, however, because of the variation of forms, e.g. Dizi **dawa**, Nayi **dɛrɛb**, Malo **dawe**, Oyda **dawwe**, Zayse **dobes**, C'ara **doʔa**, Kefoid [=Gonga] **darb**. It is tempting to find the source of this in a borrowing from Oromo 'snake' **jawwe**, but the change to **d-** and insertion of **r** are unlikely: the Oromo word is probably a loan from Omotic!"
> —Bender (2003: 233)

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[70] On the other hand, such reasoning cannot apply to the word for 'lion' which in Bench is **dód-bāy**, literally 'country mother' and possibly more freely interpreted as 'mother/owner of the land'.
[71] The exception is **ārú-bāy.kǹ** 'hippopotamus', about which Rapold (2006: 214) says that it would be "preferably small".
[72] Original (in Italian): La voce è del cuscitico comune, conservatasi trilittera, come nel caffino, in: Agau: Bileno **sabarā**, Ḫamir **sibrā**; nel Begia **emğafar**; ridotta in bilittero, nel Sidama Settentrionale: Giangerò **zawā**; Occidentale: Anfillo **dabō**, **daḍō**; e nel Basso Cuscitico: Galla **ğawē**. Il passaggio, regolare nel Cuscitico, di **z** > **d**, che si nota nel Caffino e nell'Anfillo può dipendere da un mutamento secondario per assimilazione dalla radice etimologica **sabar** (attestataci dall'Agau). Lo Giangerò contribuisce però ad attestare l'antichità della presenza di **z** nel Sidama.

His conjecture that the Oromo word **jawwee** 'python' is a loan from Omotic has turned out to be unattainable (see section §2.5). These earlier attempts at etymologising the Omotic roots illustrate the importance of bottom-up reconstruction, a wider semantic scope, and the necessity of a neogrammarian approach to historical phonology.

To summarise the proposals made in the above, based on a dominant pattern of semantic development from 'wild animal' to 'python', my proposal is that ***dab-** originally meant 'wild animal' in Proto Omotic, as South Omotic preserves this meaning. All the other branches having 'python' or 'snake' confirms the long-standing hypothesis that South Omotic is the first split-off of the Omotic family (Fleming 1976a). This coincides with the reconstruction of another root ***zab-** 'rope' for which we find a semantic split between South Omotic 'strength; strong' and the hypothesised North Omotic meaning 'rope'.

The regularity of the sound correspondences can be summarised in the following table:

Proto Omotic	*b	*c̓ub- 'smoke'	*dab- 'wild animal'	*zab- 'rope'
South Omotic	b	Hamar **c̓úba** 'smoke' Aari **c̓úba** 'smoke'	Hamar **dabí** 'wild animal' Aari **debí** 'wild animal'	Hamar **zabí** 'stiffness' Aari **zab-** 'to be strong'
Maji	b	Sheko **ʦ̓úbú** 'smoke'	--	Sheko **záábá**
Gonga	w ʔ b	Boro **s̓úwá** 'smoke' Shekkacho **c̆uɸó** 'smoke'	Boro **daw.zà** 'snake' Shekkacho **dämo** 'python'	Boro **jawa** 'to weave', **zaha** 'weft' --
Ometo	w	Gamo **c̓úwa** 'smoke'	Gamo **dáwe** 'python'	Gamo **zawá** 'boundary'
Gimira	b	Bench **cɛ̓ùb** 'smoke'	--	--
Yemsa	w	Yemsa **čūwā** 'smoke'	--	Yemsa **zāwā** 'snake'
Mao	w	N. Mao **ʦ̓úwé** 'smoke'	--	N. Mao **ʃowé** 'boundary' (??)

Table 88. Correspondence across the Omotic subbranches, ***dab-** and ***zab-** compared to ***c̓ub-**[73]

The diachronic development of the medial labials in Gonga remains obscure, as already noted by Fleming (1987: 158) in his study on Gonga historical phonology. We also face the issue here of a potential suffix **-mo** in Southern Gonga which obscures the C2 of the root (see section §3.2.5).

Overall, the semantic and phonological developments are regular. This contrasts with the idea that the similarities between North Omotic, South Omotic, and Maji are solely due to contact influence of the former as suggested by Theil (2012: 373). Taking into account diachronic semantic change, borrowing is out of question, certainly from North Omotic into South for the proposed sets shown in the table. Clearly, much work remains to be done in solving the puzzle that is Omotic.

[73] Accepting the hypothesis that Proto Omotic had a retroflex series of sibilants (Hayward 1988), one would here rather reconstruct ***ʦ̓ub-** 'smoke' based on Bench and Sheko.

4. Conclusion

4.1 Research questions

To conclude this thesis, I return to the five research questions posed in the introduction:

1. **Which snake-related roots can be reconstructed for East-Cushitic and Omotic?**

   East Cushitic

   The extreme diversity of snake-related roots in East Cushitic makes reconstruction to the proto level near impossible. For the subbranches, I have proposed the following reconstructions for 'snake':

   - Proto Highland East Cushitic ***hamas-*** 'snake'
   - Proto Central East Cushitic ***maag-*** 'snake'
   - Proto Omo-Tana ***mas-*** 'snake'
   - Proto Saho-Afar ***aroora*** 'snake'
   - Proto Dullay ***daww-*** 'snake'

   In further speculation about the history of these roots, we may try to relate Proto HEC ***hamas-*** 'snake' with words such as Bayso **habessa** 'snake' and Proto Eastern Omo-Tana ***abees-*** 'viper', although the exact sound correspondences remain obscure. It was suggested that Proto Central EC ***maag-*** 'snake' may further relate to Somali **mąag** 'to avoid something out of fear'. Proto Omo-Tana ***mas-*** 'snake' was hypothesised to have developed from Proto East Cushitic ***mas-*** 'fear, dread'. Proto Dullay ***daww-*** 'snake' likely originates as a borrowing from Ometo, for which I reconstruct ***daw-*** 'python', which I argue traces back to Proto Omotic.

   For 'python', I proposed the Proto East Cushitic root ***gawʔ-***, based on Oromo, Afar, and Arbore, along with a convincing parallel in Dahalo **gawe** 'snake'. A problem is that languages may have several roots for 'python', especially when they have a prominent symbolic role, as has been described for Oromo (see 2.4.4). Thus, in addition, I reconstruct Proto Central EC ***baf-*** 'python'. Proto Dullay also reconstructs to ***baf-*** 'python', although this may result from contact with Proto Sagan or Proto Central EC. For Highland EC, I reconstruct the root ***warr-*** 'python' which we also find in Afar **warru** 'snake' and Bayso **waarre** 'a kind of black snake'.

   Omotic

   I reconstruct a North Omotic root ***ʂooʐ-*** 'snake' based on cognates across Ometo, Gimira, Maji, and Mao. The South Omotic languages have a uniform root ***gun-*** 'snake', and for Gonga I reconstruct ***dab-*** 'snake'. The latter, I hypothesise, reconstructs to a Proto Omotic root ***dab-*** 'wild animal', which finds cognates in Proto Ometo ***daw-*** 'python' and Proto South Omotic ***dab-*** 'wild animal'. The anomalous Yemsa **zāwā** 'snake', I argue, derives from a Proto Omotic root ***zab-*** 'rope' which finds cognates in South Omotic, Ometo, Gonga, and Maji. Much word remains to be done in the description of Omotic historical phonology such that the conclusions remain tentative.

2. **What semantic shifts, both to and from words for snakes, can be traced throughout the history of these language families?**

   Section §5 below gives a complete overview of the observed patterns of diachronic semantic change. The most commonly observed shift to 'snake' is unidirectionally from the meaning 'wild animal'. In Chara, we observe a direct shift from 'wild animal' to 'python'. From 'snake', a very common unidirectional shift is observed towards 'intestinal worm'. Shifts between 'rope' and 'snake' are found going both ways. Shifts between 'snake' and specific species of snake such as 'viper' and 'python' are also observed. Other shifts can be seen in the overview below.

3. **To what extent are snake-related words borrowed, what semantic changes occur in the process of borrowing, and what can this tell us about historical contact between languages?**

   Generic words for 'snake' are seldom borrowed. Clear exceptions are Gedeo **bofa** 'snake' from Oromo **bofa** 'snake', and Argobba **wäro** 'snake' presumably from Afar **warru** 'snake'. I regard Proto Dullay ***daww-** 'snake' as a borrowing from Ometo ***daw-** 'python', and I have argued that Arbore and Elmolo **tóof** 'snake' must have originated in Rendille. In southern Somalia, an areally diffused root ***moof-** 'snake' is found across Boni, Tunni, Baraawa, and Ashraaf. I have proposed the hypothesis that these originate as a transfer from Oromo **moofa** 'old, ruined, worn out', borrowed in the euphemistic reference to 'snake'.

   Words for snake species are more commonly borrowed. I have argued that Sidaama **muusageessa** 'water python' and **ɗuɗɗuufa** 'python', Gedeo **jawwe** 'python' and **ɗuɗɗuufa** 'large-sized snake sp.', Qabeena **dʒäwita** 'python', and Hadiyya **t'araʔa** 'python' are all borrowed from Oromo. Burji **bofi** 'python' is borrowed from Konso **pofa** 'python' or Oromo **bofa** 'snake'. Proto Dullay ***baf-** 'python' may have been borrowed from Proto Sagan. A number of Gurage languages have a root **wärr-** 'python' which I argue is borrowed from Proto Northern Highland EC for which I reconstruct the root ***warr-** 'python'.

   While the root **buut-** 'puff-adder, viper' was shown to be widespread in the East Cushitic languages of southern Ethiopia, I was not able to attribute them to a single source, e.g. Oromo **buutii** (§2.4.3). Their homogeneity indicates that they are all the result of areal diffusion.

   In Omotic, Nayi **doʔu** 'python' was argued to be a loan from Chara **doʔa** 'python'. Dime **dawu** 'python' is borrowed from either Maji or Ometo. Maji ***daw-** 'python' is likely a loan from Ometo ***daw-** 'python'. Maale **k'arro** 'python' is borrowed from South Omotic. Bench **dīngúr** 'snake sp.' is likely a loan from Kafa **dingarō** 'snake' and was in turn loaned from Bench into Sheko **dīngūrù** 'viper'.

4. **What are the cultural and conceptual mechanisms behind the lexical semantic change in words for snakes?**

   One of the main factors causing lexical shift appears to be the taboo on the mention of the word for snake, especially at night. Euphemistic expressions are instead employed to refer to them, and over time these may become lexicalised.

The conceptualization of snakes influences the choice of euphemisms. These may range from broad and unspecific terms such as 'wild animal', to more deceptive terms such as 'rope' or 'straightness'. In other cases, direct reference is made to their frightening nature, as in Oromo **jiilicha** < **jiilcha** 'to cause fear' which parallels the hypothesised development of Proto Omo-Tana ***mas-** 'snake' from Proto East Cushitic ***mas-** 'fear, dread' and may, conjecturally, relate to the correspondence between Proto Central EC ***maag-** 'snake' and Somali **mąag** 'to avoid something out of fear'.

In the other direction, words for 'snake' commonly tend to shift to 'intestinal worm'. This has both a visual and an experiential basis. The roundworm *Ascaris lumbricoides* can be visibly found (moving) in the feces of affected individuals, as adult roundworms can range between 15 to 35 cm in length. In Hamar, these intestinal worms may be described as **ii guní** 'stomach snakes' or simply as **guní** 'snakes', also for the reason that the pain they cause is said to be similar to that of a snakebite. Accordingly, the verb used is **gaʔá** 'to bite', as also in Bench **sàts**' 'to bite; to be sick in stomach (e.g. because of hookworm)'.

The semantic interchange between 'snake' and 'rope' is also visually motivated, although no clear cases of polysemy have yet been observed for these meanings.

5. **Are these mechanisms still at play at a synchronic level (e.g. taboo avoidance), and what explanations can they offer for deeper historical developments?**

   Verbal snake-taboo avoidance practices still play a role at the synchronic level, as is observed in several languages, and has likely gone unnoticed in many more. The exact avoidance strategies that are employed match the lexical developments observed at a diachronic level. Section §5 below lists synchronic processes alongside diachronic ones.

   In section §4.2.2, below I outline a possible correlation between the presence of verbal snake-taboos, ecology, and lexical innovation.

4.2 Further research

4.2.1 Recommendations

Future linguistic research should prioritise the documentation of verbal snake taboos and related avoidance strategies. The euphemisms that are employed are particularly insightful in understanding the conceptualisation of snakes in different languages.

In language descriptions, more attention needs to be given to semantic issues, such as polysemy and compound semantics. There is also a notable gap in adequate lexical documentation for terms related to intestinal worms and specific snake species, such as puff-adders/vipers, and pythons. Researchers should also consider that multiple terms may exist for each species.

In lexicographical work, a higher standard of semantic accuracy is essential for glosses and definitions (see Hazel 2019b: 55). Discrepancies have been observed for instance in Dhaasanac (Tosco 2001) where both **luobal** and **mórti** are listed as 'python', the former likely being erroneously glossed for what should have been 'cobra'. Similarly, Treis's (2008) gloss of **hamasú** as 'tapeworm' is likely a misrepresentation of a more general term for 'intestinal

worm'. Overall, vague descriptors such as 'a kind of snake' are to be avoided. If a precise taxonomic name cannot be provided, clues should instead be given about the snake's appearance or behavior. Such information can be crucial for historical linguists, but also for researchers in other disciplines such as biologists. When two words with the same meaning/gloss are reported, as for example Dizi **tʃuaʒu** 'snake' and **sukunud** 'snake' in Beachy (2005), it will be useful to make a note of their difference in meaning or usage context. I admit that shortcomings of this kind are inherent to simple wordlists and glosses found in grammars. What is most urgently needed therefore are comprehensive dictionaries that pay attention to these issues and elaborate on semantic detail and cultural nuances. In this respect, the Borana Oromo dictionary by Leus & Salvadori (2006) stands as a benchmark for scholarly lexicography in Cushitic and Omotic studies, despite obvious inaccuracies in its transcriptions.[74]

Such semantic detail will also be useful for lexical typologists and historical linguistics looking to understand patterns of polysemy and semantic change. Currently, the CLICS[3] database (Rzymski et al. 2019) —which is widely used for such purposes— only lists a single colexification for the concept SNAKE, namely WORM. The findings in this thesis sketch a different picture, and highlight the need to distinguish between concepts such as 'worm', 'intestinal worm', and 'tapeworm' which all tend to be independently lexicalised, with 'intestinal worm' often present as a secondary sense of a word for 'snake'. The CLICS[3] database has only a single sample for the entire Horn of Africa. To ensure this region is better represented in future typological studies, it is crucial to expand on thorough lexicographic work and description and documentation of understudied languages and dialects.

4.2.2 Snake-taboos, ecology, and lexical innovation

I here propose the idea that a potential correlation exists between verbal snake-taboos, lexical innovation, and ecology. Research by Abebe et al. (2014) and Gashaw et al. (2022) identified a high diversity of venomous snake species and a high prevalence of snakebite in specific lowland regions of Ethiopia, including eastern Oromia, the Somali Region, and the Afar Region, at altitudes below 1,900 meters. Precisely the languages spoken in these areas show clear evidence of snake-taboos (e.g. Oromo, Somali, Afar) and/or a high rate of diachronic change (e.g. Eastern Omo-Tana).

This pattern is further supported by the observation that a snake taboo is not strongly present in Dhaace Gamo (Omotic; Ometo), spoken by an agricultural community in the more densely populated highlands, at altitudes above 1900m. According to Dhaace Gamo elder Kapo Kansa, the word **shóósha** 'snake' can be used at any time, even at night or in the case of a snakebite.[75] This correlates with the homogeneity in the root for 'snake', ***ʂooʐ-**, across Ometo, Gimira, Maji, and Mao.[76] In contrast, Bench and Dizi, which are also spoken in highland ecologies, were found to have euphemistically composed terms for 'snake'—**tsʾōtʾńbàb** and **sukunud**, respectively. This seemingly contradictory evidence is reconciled by the fact that the far southwestern highlands where these languages are spoken are among the snakebite hotspots identified in the aforementioned studies.

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[74] The Sidaama dictionary by Gasparini (1983), the Afar dictionary by Morin (2012), and the Gamo dictionary by Hayward & Eshetu (2014) also deserve mention here, although the latter unfortunately did not include any words for snakes besides the generic word **šóššì** 'snake'.

[75] Although, optionally, a snake may be referred to as **hebuló ~ hebulóza** 'so-and-so', for example to avoid frightening children.

[76] Yet, the divergence in Gonga, South Omotic, and Yemsa is an exception to this.

Further evidence for this hypothesis lies in the fact that Tigre, spoken in the Eritrean lowlands, developed **arwe** 'snake' from earlier 'wild animal', the original meaning being preserved in Amharic and Tigrinya spoken in the highlands.

This idea may be useful in historical linguistics. Diversity in roots for 'snake' and difficulty in reconstruction may point to ancestral speakers being situated in a lowland ecology. Branches spoken in the highlands may potentially be more likely to have preserved the archaic word for 'snake'.

5. List of semantic changes

5.1 Diachronic shifts and synchronic polysemy

WILD ANIMAL → SNAKE

Diachronic shift

1. Dabarre, Garre, Banaadir (East Cushitic; Eastern Omo-Tana)
   bahal 'snake'
   < Proto Eastern Omo-Tana ***bahal-** 'wild animal'
   §2.1.4

2. Tigre (Semitic; North Ethiopic)
   arwe 'snake'
   < 'wild animal', cf. Amharic **awre**, Ge'ez **arwe** 'wild animal'
   see Leslau 1987: 40

Polysemy and compounds

1. Bench (Omotic; Gimojan)
   tsʾōťń-bàb 'snake'
   Lexicalised/lexicalising compound of **tsʾóťʾ** 'wild animal' and **bàb** 'father'
   §3.8

2. Afar (East Cushitic; Saho-Afar)
   baaḍòh-ala 'snake'
   = 'ground' + 'wild animal'; possibly an avoidance term?
   §2.3.2

3. Somali (Semitic; North Ethiopic)
   bahal hoose 'snake' (Jama Musse Jama, p.c.)
   = 'wild animal' + 'below, lower'; avoidance term
   Jama Musse Jama, p.c.

4. Geʾez (Semitic; North Ethiopic)
   arwe mədr 'snake'
   = 'wild animal' + 'ground'; basic term
   Leslau 1987

5. Hamar (Omotic; South)
   pee dabí 'snake' or **dabí** 'wild animal'
   = 'ground' + 'wild animal'; avoidance term
   (own data)

5. Tsamay (East Cushitic; Dullay)
   aako biyatte 'snake'
   = 'wild animal' + 'ground'; avoidance term
   (own data)

WILD ANIMAL → PYTHON

Diachronic shift

1. Chara (Omotic; Ometo)
   doʔu 'python'
   < Proto Ometo ***doʔ-** 'wild animal'
   §3.4

2. Proto Ometo (Omotic; North)
   ***daw-** 'python'
   < Proto Omotic ***dab-** 'wild animal' (hypothesised)
   §3.2

SNAKE → INTESTINAL WORM

Diachronic shift

1. Kambaata / Alaaba / Qabeena (East Cushitic; Highland)
   hamas- 'intestinal worm'
   < Proto Highland East Cushitic ***hamas-** 'snake'
   §2.6

2. Irob Saho (East Cushitic; Saho-Afar)
   ála 'tapeworm'
   < Proto Saho-Afar ***ála** 'wild animal; snake'
   §2.3.2

3. Afar (East Cushitic; Saho-Afar)
   alluulle 'hookworm parasite'
   < Proto Saho-Afar ***alluula** 'wild animals'
   §2.3.2

4. Oromo (East Cushitic; Central)
   maagaa 'intestinal worm'
   < Proto Central East Cushitic ***maagaa** 'snake'
   §2.4.1

Synchronic polysemy

1. Somali (East Cushitic; Eastern Omo-Tana)
   mas 'snake; intestinal worm'; **masas** (pl.)
   §1.4.1

2. Dhaasanac (East Cushitic; Western Omo-Tana)
   cár 'snake'; **caara** (pl.)
   cáɗɗi 'intestinal worm' (< **cár-ɗi**); **caara** (pl.)
   §2.1.2

3. Afar (East Cushitic; Saho-Afar)
   bagi-ala 'intestinal worm'
   = 'belly + wild animal'
   §2.3.2

4. Orma Oromo (East Cushitic; Central)
bofā garaa ‘tapeworm, intestinal worms’
= ‘snake’ + ‘stomach’
Hoskins 2025

5. Hamar (Omotic; South)
guní ‘snake; intestinal worm’;
ii guní ‘intestinal worm’
= ‘stomach’ + ‘snake’
(own data)

6. Middle Egyptian (Egyptian)
ḏdft ‘snake; internal bodily worm’
Dickson 2006

SNAKE → ROPE

Diachronic shift

1. Dhaasanac (East Cushitic; Western Omo-Tana)
mása ‘rope; power’
< Proto Omo-Tana ***mas-** ‘snake’
§2.1.3

2. Wollega Oromo (East Cushitic; Central)
bofee ‘rope’
< Oromo **bofa** ‘snake’
Gragg 1982: 53

3. Kafa (Omotic; Gonga)
dabbo ‘rope, hunting net’
< Proto Gonga ***dab-** ‘snake’ (*uncertain)
§3.2.5

Synchronic polysemy

Unattested in the current data, but cf. such cases as Dutch **tuinslang** ‘garden hose’, lit. ‘garden snake’, also simply as **slang** ‘snake; hose, tube’.

ROPE → SNAKE

Diachronic shift

1. Yemsa (Omotic; Gimojan)
zāwā ‘snake’
< Proto Gimojan ***zab-** ‘rope, line’
§3.3

Synchronic polysemy & euphemism

1. Yemsa (Omotic; Gimojan)
pèyà ‘string made from ensete’ (Zaugg-Coretti 2013)
peya ‘snake’ (Schaumberger, n.d.) [presumably an avoidance term]
§3.3

2. Dizi (Omotic; Maji)
tsuku nudu ‘snake’ ~ **sukunud** ‘snake’ [presumably an avoidance term]
= **tsuku** ‘bark rope’ + **nudu** ‘wild animal’
§3.7

3. Arbore (East Cushitic; Western Omo-Tana)
simɓac ‘snake’ [avoidance term]
= **simɓac** ‘bark rope’
(own data)

4. Orma Oromo (East Cushitic; Central)
ƙunʗe lafa ‘snake’ [presumably an avoidance term]
= **ƙunʗe** ‘fiber from plants’ + **lafa** ‘ground’
Hoskins 2025

4. Tigre (Semitic; North Ethiopic)
ḥabl mədr ‘snake’ [presumably an avoidance term]
= **ḥabl** ‘rope’ + **mədr** ‘ground’
Littmann & Höfner 1962: 78

Proverb

1. Orma Oromo (East Cushitic; Central)
Saa guyya tikittī maagā dammakʹē, galgalā gaadi dammakʹā.
‘A milk cow frightened by a large snake while grazing will be frightened at home by his milking rope.’
Hoskins 2025

SNAKE → PYTHON

Diachronic shift

1. Shekkacho (Omotic; Gonga)
dämo ‘python’
< Proto Gonga ***dab-*** ‘snake’
§3.2.5

PYTHON → SNAKE

Diachronic shift

1. Kambaata, Alaaba, Qabeena (East Cushitic; Highland)
warr- ‘snake’
< Proto Northern HEC ***warr-*** ‘python’
§2.6

2. Oromo (East Cushitic; Central)
bofa ‘snake’
< Proto Central East Cushitic ***baf-*** ‘python’
§2.4.2

3. Proto Gonga (Omotic; Gonga)
***dab-** 'snake'
< Proto Ta-Ne ***dab-** 'python'
§3.2.5

SNAKE → VIPER

Diachronic shift

1. Boni (East Cushitic; Eastern Omo-Tana)
bààhál 'puff-adder'
< Proto Garre-Boni ***bahal-** 'snake'
§2.1.5

TO BREAK (TR.) → PYTHON

Diachronic shift

1. Somali (East Cushitic; Eastern Omo-Tana)
jebiso 'python'
< **jebi-** 'to break (tr.)', lit. 'breaker (f.)'
§2.2.2

2. Jiiddu (East Cushitic; Eastern Omo-Tana)
jhawasté 'python'
< **jhow-** 'to break (tr.)'
§2.2.2

3. Rendille (East Cushitic; Eastern Omo-Tana)
khorojébsi 'python'
< **khoro** 'firewood' + **jébsi** 'breaker'
§2.2.2

4. Arbore (East Cushitic; Western Omo-Tana)
ḳorḳessá 'python'
< **ḳor** 'firewood' + **ḳebis-/ḳess-** 'to break (tr.)' [possibly calqued from Rendille]
§2.2.2

FEAR → SNAKE

Diachronic shift

1. Somali (East Cushitic; Eastern Omo-Tana)
mas 'snake'
< Proto East Cushitic ***mas-** 'fear, dread'
§2.1.3

2. Proto Central East Cushitic
maag- 'snake'
< cf. Somali **mąag** 'to avoid something out of fear' [uncertain]
§2.4.1

3. Konso (East Cushitic; Central)
koolaa ‘poisonous snake sp.’ [=‘cobra’?]
< Proto Central East Cushitic ***gool-** ‘to terrorise, to disturb’
§2.4.1

Productive euphemism

1. Borana Oromo (East Cushitic; Central)
jiilicha ‘snake’ [avoidance term]
< **jiilcha** ‘to cause fear’
Leus & Salvadori 2006

5.2 Semantic shifts in borrowing

SNAKE → VIPER

1. Tsamay (East Cushitic; Dullay)
šoš-ko ‘viper’
← Ometo ***ʃooʃ-** ‘snake’, perhaps Maale **ʃóóʃi** ‘snake’
§3.1

2. Bench (Omotic; Gimojan)
dingur 34 ‘snake sp.’ [=‘viper’?]
← Kafa **dingarō** ‘snake’ [uncertain]
§3.6

3. Dhaasanac (East Cushitic; Western Omo-Tana)
bóf ‘viper’
← Oromo **bofa** ‘snake’ [uncertain]
§2.4.2

4. Dizi (Omotic; Maji)
bofi ‘venomous snake sp.’
← Oromo **bofa** ‘snake’ [uncertain]
§2.4.2

OLD ONE → SNAKE

1. Boni / Tunni (East Cushitic; Eastern Omo-Tana)
moofə / moof ‘snake’
← Oromo **moofaa** ‘someone/something old, aged’, **moofa** ‘old, ruined, worn out’
§2.1.5

2. Girirra (East Cushitic; Eastern Omo-Tana)
ʤarso ~ ʤaarso ‘viper; poisonous spider’
← Oromo **jaarsa** ‘old person, old animal’ / **jaarsoo** ‘old (of persons)’
§2.1.5

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NB: Ethiopian authors have been cited according to the conventions outlined in Meyer & Treis (2021).

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