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SOMALI FLORA AND FAUNA: SOME ETHNOLINGUISTIC NOTES

1. *The Somali ecosystem*

Somalia is part of the eastern Abyssinian Plateau which gradually slopes down from an average altitude of 1,000 meters towards the Indian Ocean. The northern part of the country comprises mountains of up to 2,000 meters in height, dramatically falling toward the coast and the Gulf of Aden. A wide alluvial lowland is crossed by the two main rivers, the Shebeli and the Juba, where most of the agricultural land is concentrated. The rest of the country is semi-desert, an arid savanna where *Commiphora Acacia* is the uncontested queen of the landscape. Apart from the aloe, the most common species of the driest areas are *Euphorpiae* and *Jatrophae*. According to Somali culture, the year is divided into four main seasons according to climatic variation:

jilaal: the dry season (December to March)
gu': the main rainy season (April to June)
xagaa: the dry season of monsonic winds blowing from the south-west (July to September)
dayr: the short rainy season

The division into four seasons is based both on climatic shifts and the needs of agriculture and herding. In agriculture there is a poor irrigation network, partially inherited from colonial times, and the irrigation of fields mainly depends on rains. All sowing, weeding and harvesting activities depend on climatic factors and so the sharp division in weather conditions is highly influential. The differentiation between seasons is also important for the purpose of watering animals and for transhumance in the dry season toward suitable grazing lands.

2. *Human communities and knowledge of the natural environment*

Somali society is subdivided into two main social groups integrated in different ways in the ecosystem.[1]

The ***sab*** group is mainly concentrated between the two major rivers (the Shebeli and the Juba). The subsistence economy of *sab* people is based on agriculture and hunting. Cattle herding is traditionally practiced, though with less transhumance when compared to the past. Being a common name semantically, *sab* also includes all those who are considered by the Somali community as "outsiders", such as the *tumaal* (blacksmiths), the *midgaan* (wild animal hunters), the *yibir* (jugglers and tumblers) and the *meddo* (fishermen and boat builders).

In contrast, the ***saamale*** are cattle herders and deal only with goats, sheep and camels; they are politically organized into clans; these are almost totally independent from one another and organized according to a tribal system of a patrilineal and agnatic nature. Camel herding is a male duty, whereas sheep and goat herding is a matter for women. Working activities are neatly divided between the two sexes: men trade, and milk and take care of camels, while women take care of goats and sheep and also have responsibility for the family, food and the manufacture of objects. Knowledge and experiences are shared among individuals belonging to each of the two separate groups. Daily life is spent with those who belong to the same social group: young girls with mothers and old women on the one hand, young boys and men on the other. Because of this essentially separate lifestyle, gender differences are reflected in a different approach to nature and the environment: women have a deeper knowledge of edible and medicinal plants and are able to recognize all useful plants that can be used in the manufacture of tools and implements. Meanwhile, men have a good knowledge of the plants which are useful for feeding camels as they understand the ecosystem regarding camels and large size livestock in general.

3. *An ethnoscience of the natural world*

It had been noted that a detailed knowledge of the environment is highly important for the other large nomadic and semi-nomadic societies in East Africa (Kårehed and Odhult 1997, Heine et alii 1988). The social group is part of an ecosystem which regulates all human activities, social roles and welfare. In this sense traditional knowledge is similar to a common archive, grouping all collective experiences together and passing them on to future generations. Every single individual is part of an ongoing mechanism that can only work if everyone is fully involved in fulfilling his/her own duties for the community. It is a fine balance and in some cases it may give way, owing to abrupt changes in the ecosystem which have profound consequences for all human groups.

The linguistic classification of the natural world reflects this fine underlying balance. Features regarding shape and functional information are fused together in the names of plants, flowers, shrubs, trees and so on. The name of the plant provided by taxonomic scientific classification is usually just one name among others, a way of distinguishing something according to the scientific need to name things. This is a matter of scientific recognition and classification and generally concerns only the specialist. On the contrary, the names of plants according to an ethno-botanical classification bring together language sounds and cultural knowledge, which are widespread among the members of a community. The distinction between science and ethnoscience consists of scientific objectivity on the one hand and culturally meaningful knowledge on the other.

The lack of objectivity in ethnoscience has the misleading consequence of giving different plants the same name. One plant may therefore have several names depending on its vegetative life cycle. In fact, similar use of different plants might cause a community to name them in the same way, while using a single plant for different needs and according to its stage in its vegetative life cycle, might create a need to distinguish it by

different names. When this is the case, what we might see as an apparent contradiction is in fact a culturally relevant reason to interpret and distinguish nature in a different way.

Evidence of this particular aspect of ethnoscience is provided by our database, which contains more than 10,000 names for plants, 30% of which are used as a single entry for more than one plant. (cf.§ 4.).

On a macro level, and according to Berlin, Breedlove and Raven (1973), it is possible to group entities into folk taxonomies based on rank. According to this theory, every folk classification is comparable to those which are currently used in biology as a science, grouping elements as taxa in one of the levels of a taxonomic classification. Somali ethnoscience does not seem to fit the theoretical framework of folk taxonomies, but as far as we know it is possible to distinguish hyperonyms under which all plant and animal names can be grouped. In a taxonomic representation of folk biology they would be called "unique beginners":

Plants or 'non breathing living creatures'

geed	any non-seasonal prototypical plant, whether shrub, tree or grass-like, which is useful to human beings and animals
caws	seasonal herbs and grass-like plants or small shrubs useless to human beings and animals

Breathing creatures

xayawaan	edible breathing sea creatures
kalluun	non-edible breathing sea creatures (shellfish, seafood, jellyfish)
haad	birds of prey
shimbir	non birds of prey (hens, ducks and so on)
bahal	untamed wild animals
duunyo	tamable wild animals
xoolo	useful tame animals (camels[2], goats, sheep)

Supernatural creatures, spiritually controlled beings

dad	human beings (unrelated to animals)
jinni	spiritual beings (in the Islamic tradition) some-

nafley	times transformed into human beings and animals immaterial living creatures (unknown to western science)

4. *The Somali natural lexicon database in the framework of the 'Studi Somali' project*

The first scientists who were interested in the flora and fauna of Somalia started collecting data at the end of the 19th century. In colonial times and the early years of the post-colonial era (up to 1957), 60 naturalists worked in Somaliland and 74 naturalists worked in Italian Somalia. The best herbaria, which house all specimens from Somali, are in London and Florence, the Mogadishu herbaria having been destroyed during the recent civil war. Emilio Chiovenda's work (1929-1932) deserves particular mention of all the Italian naturalists who worked in Somalia during the colonial era in the 1930s. The best recent collection of Somali botanic and zoological names is in Kazmi (1985), and this is one of the best sources for the *Studi Somali* database.

Our database is organized on ACCESS software and is based on 212 scientific sources which were published between 1890 and 1985. Every record contains the Somali term, the scientific name, and the scientific classification for all the plants which ultimately share the same name in Somali. The total amount of records in the database is subdivided as below:

Flora	12,243 records, grouping all Somali names for plants
Fauna	tame animals (86 records), reptiles and amphibians (250 records), mammals (252 records), invertebrates (105 records), birds (820 records).

It should be mentioned that the reason for the high number of birds' names is the correspondingly high number of bird species present in the Horn of Africa.

Work was intended to take place on expanding the database though intense field research into the relationship between ethnoscientific knowledge and the natural environment in the

Somali ecosystem. However, all projects have been temporarily canceled because of the serious political crisis that has gripped Somalia for the past fifteen years. A threatened ecosystem compromises the community and involves profound changes in lifestyle. The decline of any specific lifestyle has serious consequences for traditional knowledge and implies great changes in the relationship between language and culture. It is probably this condition that most Somali people have been facing in these recent years of suffering and deep sorrow, and which we sincerely hope will soon come to an end.

NOTES

[1] The best reference for the ecology of language and culture regarding the natural environment in Somalia is Berchem, 1994.

[2] Banti 1993 is a good reference for ethnoscientific classifications regarding camels in the Horn of Africa.

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