BIOGEOGRAPHIA - vol. XIV - 1988
(Pubblicato il 31 dicembre 1990)
The Biogeography of Somalia

Amphibians and reptiles of the Somali Democratic Republic: check list and biogeography

BENEDETTO LANZA
Dipartimento di Biologia Generale e Genetica e Museo Zoologico «La Specola», Università di Firenze

SUMMARY

Check list of the 29 amphibian and 203 reptilian species known to inhabit the Somali Democratic Republic, with notes on their general and Somali range. Four species of Amphibia (13.79% of the entire batrachofauna) and 78 species of Reptilia (39.59% of the entire reptilian fauna, the 6 marine species excluded) are endemic; the endemic genera are 5: the frog *Lanzarana*, the agamid *Xenagama*, the scincid *Haackgreerius*, and the colubrids *Aeluroglena* and *Brachyophis*. It is noteworthy that among the Gekkonidae 29 species (65.91%) belong to the genus *Hemidactylus* and that 17 of them (58.62%) are endemic. The entire batrachofauna is Ethiopian (*sensu* Wallace); the eastern African (*sensu* Wallace) reptiles together with the prevalently eastern African ones represent 77.66% of all non-marine Somali species, whereas the strictly Ethiopian non-marine species reach 92.89% of the entire Somali reptilian fauna. No Somali amphibian has ever been found in Arabia, while 24 reptilian species of the 197 non-marine ones (12.18%) are known to inhabit both Somalia and Arabian Peninsula, excluding Sinai.

INTRODUCTION

The present paper is an updated and a more strictly biogeographic version of my previous list of the Somali amphibians and reptiles (1983). For further historical, taxonomical and distribution details one may refer to the latter as well as to my list of the Somali amphibians (1981). The synonyms are mostly quoted only in the analytical index.

CHECK-LIST OF THE SOMALI AMPHIBIANS AND REPTILES[1]

Class *AMPHIBIA* Latreille, 1825.
Order *ANURA* Rafinesque, 1815.
Family **Bufonidae** Gray, 1825.
Genus *Bufo* Laurenti, 1768.

[1] The following abbreviations have been used: **AS** = all Somalia. **CS** = central Somalia, corresponding to the regions Mudug and Galgadud. **E** = east, eastern. **N** = north, northern. **NE** = northeastern. **NS** = northern Somalia, corresponding to the regions West Galbeed, Togdheer, Sanaag, Nogal and Bari. **NW** = northwestern. **S** = south, southern. **SE** = southeastern. **SS** = southern Somalia, corresponding to the regions Hiran, Bay, Bakool, Gedo, Middle Shebelli, Mogadishu, Lower Shebelli, Middle Juba and Lower Juba. **SW** = southwestern. **W** = west, western (see also Fig. 1).

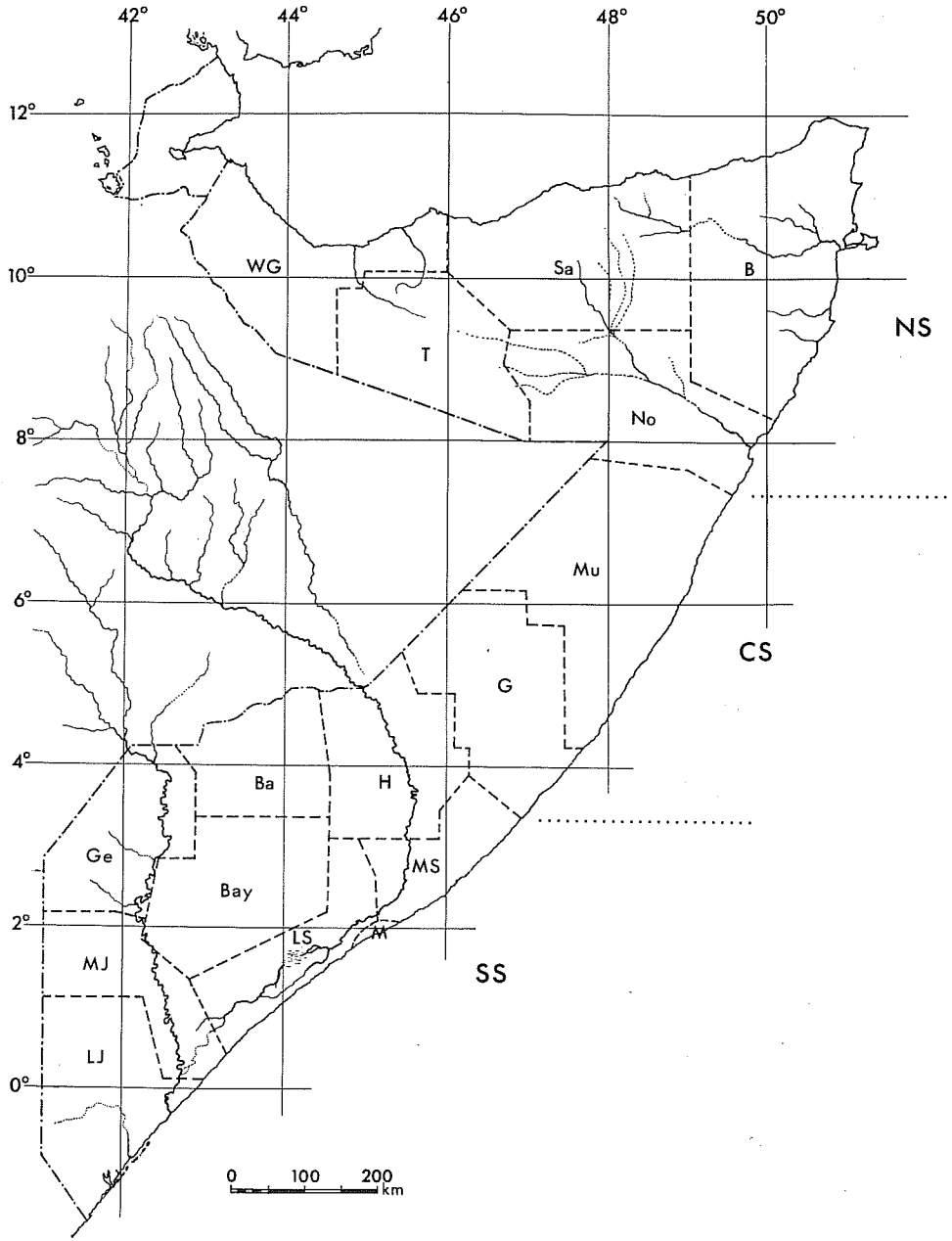

FIG. 1 - Map of the Somali Democratic Republic. **B** = Bari; **Ba** = Bakool; **Bay** = Bay; **G** = Galgadud; **Ge** = Gedo; **H** = Hiran; **LJ** = Lower Juba; **LS** = Lower Shebelli; **M** = Mogadishu; **MJ** = Middle Juba; **MS** = Middle Shebelli; **Mu** = Mudug; **No** = Nogal; **Sa** = Sanaag; **T** = Togdheer; **WG** = West Galbeed; **CS** = central Somalia (Mu + G); **NS** = northern Somalia (WG + T + Sa + B + No); **SS** = southern Somalia (H + Bay + Ba + Ge + MS + M + LS + MJ + LJ).

Bufo blanfordi Boulenger, 1882.
General distribution: Ethiopia and N Somalia. *Somali distribution:* **NS** (WG, Sa, B, No.

Bufo dodsoni Boulenger, 1895
General distribution: E Africa from SE Egypt to Somalia. *Somali distribution*: **AS** (NS, CS, H).

Bufo garmani Meek, 1897.
General distribution: disjunct populations from E Africa to N parts of the Rep. South Africa; Angola. *Somali distribution*: **NS** (WG).

Bufo lughensis Loveridge, 1932.
General distribution: Ethiopia; Somalia; Kenya. *Somali distribution*: **AS** (B, No, Mu, MS, LS, Ba, Ge, Bay, LJ).

Bufo steindachneri Pfeffer, 1893.
General distribution: Nigeria eastwards to Ethiopia, Somalia, Kenya, Uganda, and Tanzania. *Somali distribution*: **SS** (MS, LS, MJ, LJ).

Bufo xeros M. Tandy, J. Tandy, Keyth et MacKay, 1976.
General distribution: subsaharian Africa southwards to Tanzania. *Somali distribution*: **CS; SS**.

[Probably present in SS: *Bufo gutturalis* Power, 1927. *General distribution*: W Uganda eastwards to coastal Kenya, S to Transkei and Natal (Rep. South Africa), and Botswana].

Family **Microhylidae** Noble, 1931.
Genus *Phrynomerus* Noble, 1926.

Phrynomerus bifasciatus (Smith, 1847).
General distribution: Shaba (Zaire) and S Somalia to Rep. South Africa. *Somali distribution*: **SS** (LJ).

Phrynomerus somalicus (Scortecci, 1941).
General distribution: S. Somalia. *Somali distribution*: **SS** (MS, LS, Bay).

Family **Ranidae** Rafinesque, 1814.
Genus *Hildebrandtia* Nieden, 1907.

Hildebrandtia macrotympanum (Boulenger, 1912).
General distribution: Ethiopia; Somalia; Kenya. *Somali distribution*: **NS** (B); **SS** (LS, Ba, Bay or Ge ?).

Genus *Hylarana* Tschudi, 1838.

Hylarana galamensis (Duméril et Bibron, 1841).
General distribution: subsaharian savannas from Senegal to Mozambique. *Somali distribution*: **SS** (H, MS, LS, MJ).

Genus *Lanzarana* Clarke, 1982.

Lanzarana largeni (Lanza, 1978).
General distribution: Somalia. *Somali distribution*: **AS** (No, G, Ba, Bay, MS).

Genus *Phrynobatrachus* Günther, 1862.

Phrynobatrachus acridoides (Cope, 1867).
General distribution: sahel of E Africa to Natal (Rep. South Africa). *Somali distribution*: **SS** (MJ, LJ).

Phrynobatrachus minutus (Boulenger, 1895).
General distribution: Sudan and Somalia to Zaire and Zambia. *Somali distribution*: ?? (quoted for Somalia by Loveridge, 1957, and Frost, 1985).

Phrynobatrachus sp.
Somali distribution: **SS** (MS, LJ).

[Probably present in Somalia: *Phrynobatrachus natalensis* (Smith, 1849). *General distribution*: subsaharian African savannas].

Genus *Ptychadena* Boulenger, 1918.

Ptychadena anchietae (Bocage, 1967).
General distribution: Shaba (Zaire) and Ethiopia to Natal (Rep. South Africa); Angola. *Somali distribution*: **NS** (WG, Sa, B); **SS** (H, MS, LS, Ge, Bay).

Ptychadena mossambica (Peters, 1854).
General distribution: S Somalia; Kenya; Tanzania; Malawi; Zambia; Zimbabwe; Mozambique; E Botswana; Rep. South Africa (E and N Transvaal; Natal). *Somali distribution*: **SS** (MS, LS, Bay, MJ, LJ).

Ptychadena schillukorum (Werner, 1907).
General distribution: from Cameroon to Egypt, and E Africa from Sudan to N Mozambique. *Somali distribution*: **SS** (MS, LS, Bay, MJ, LJ). *Remarks*: for taxonomy see Perret, 1987.

Genus *Pyxicephalus* Tschudi, 1838.

Pyxicephalus adspersus edulis Peters, 1854.
General distribution of the species (according to Poynton & Broadley, 1985). Subsp. *edulis*: «Mozambique Plain and surrounding lowlands, extending across at least more northern parts of Botswana to northern Namibia and Angola; East Africa, and savannas west to Nigeria. Specimens with mixed

edulis and *a. adspersus* widespread over the northern South Africa plateau and Botswana, upper and middle Zambesi basin». Subsp. *adspersus* Tschudi, 1838: «South African plateau, eastern Cape, Natal, central Namibia, central and northern Botswana, extending across Zimbabwean highveld». *Somali distribution*: **SS** (LS, Bay, LJ).

Pyxicephalus obbianus Calabresi, 1927.
General distribution: N and central Somalia. *Somali distribution*: **NS** (B); **CS** (Mu, G).

Genus *Tomopterna* Duméril et Bibron, 1841.

Tomopterna cryptotis (Boulenger, 1907).
General distribution: xeric regions of the subsaharian Africa. *Somali distribution*: **AS** (NS, CS, H, MS, LS, Ba, Bay, Ge).

Family **Rhacophoridae** Hoffmann, 1932.
Genus *Chiromantis* Peters, 1855.

Chiromantis petersi kelleri Boettger, 1893.
General distribution of the species Chiromantis petersi Boulenger, 1882: lowland savannas from Ethiopia and Somalia to Tanzania; subsp. *kelleri*: Ethiopia; Somalia; N Kenya. *Somali distribution*: **AS** (Sa, B, No, Mu, MS, M, LS, Ba, Ge, Bay, LJ).

Family **Hyperoliidae** Laurent, 1951.
Genus *Hyperolius* Rapp, 1842.

Hyperolius argus Peters, 1854.
General distribution: S Somalia to Natal (Rep. South Africa) in the low-lying E parts of the savanna. *Somali distribution*: **SS** (MJ, LJ).

Hyperolius nasutus Günther, 1864.
General distribution: savannas of Ivory Coast E to S Somalia, thence to Namibia, Botswana and Natal. *Somali distribution*: **SS** (LJ).

Hyperolius pusillus (Cope, 1862).
General distribution: S Somalia S along coastal lowlands of Africa to Transkei (Rep. South Africa). *Somali distribution*: **SS** (LJ).

Hyperolius viridiflavus viridiflavus (Duméril et Bibron, 1841).
General distribution of the species: savannas of W, central and E Africa (occurrence S of Tanzania controversial); subsp. *viridiflavus*: Ethiopia; S Somalia; NW Kenya, NE Uganda. *Somali distribution*: **SS** (MS, LS, MJ, LJ).

Genus *Kassina* Girard, 1853.

Kassina (senegalensis) argyreivittis Peters, 1854.
General distribution of Kassina senegalensis (Duméril et Bibron, 1841) complex: tropical savannas from Senegal, S Mali, and Niger to N Cameroon, Uganda and S Somalia, thence S to Namibia, and Rep. South Africa (Transvaal; Natal) («virtually all savanna areas south of the Sahara» according to Poynton & Broadley, 1987); *K. (senegalensis) argyreivittis*: «Distributed in southern coastal Kenya, coastal lowlands of Tanzania, Mozambique to South Africa» according to Schiøtz (1975); further data in Poynton & Broadley, 1987. *Somali distribution*: **SS** (LJ).

Kassina parkeri (Scortecci, 1932).
General distribution: N and S Somalia; NE Kenya. *Somali distribution*: **NS** (B, No); **SS** (Bay).

Kassina somalica Scortecci, 1932.
General distribution: N and S Somalia; coastal Kenya; N Tanzania. *Somali distribution*: **NS** (B, No ?); **SS** (MS, LS, Bay, LJ).

Genus *Leptopelis* Günther, 1858.

Leptopelis concolor Ahl, 1929.
General distribution: S Somalia; coastal Kenya; NE coastal Tanzania. *Somali distribution*: **SS** (MJ) (L. G. Hoevers, personal communication 1977; quoted as *Leptopelis argenteus concolor*).

Family **Hemisidae** Cope, 1867.
Genus *Hemisus* Günther, 1858 ([2]).

Hemisus marmoratus marmoratus (Peters, 1854).
General distribution: the species occurs in several subsaharian regions of Africa; subsp, *marmoratus*: Rep. South Africa (N Zululand; W Transvaal); E and N Botswana; Zimbabwe and Mozambique northwards to S Somalia. *Somali distribution*: **SS** (Bay, LJ).

Class *REPTILIA* Laurenti, 1768.
Order TESTUDINES Linnaeus, 1758.
Family **Testudinidae** Gray, 1825.
Genus *Geochelone* Fitzinger, 1835.

Geochelone pardalis babcocki (Loveridge, 1935).
General distribution (two subspecies): E Africa from S Sudan and Ethiopia to Natal; W through cape Province to South West Africa [where subsp. *bab-*

([2]) As even in Frost's list of world amphibians (1985) the specific names of this genus are grammatically incorrect, I would like to point out that *Hemisus* is of masculine gender, while *Engystoma* is actually of neuter gender.

cocki meets with the Namibian subsp. *pardalis* (Bell, 1828)], and S Angola. *Somali distribution*: **NS** (WG, T, No); **SS**.

Genus *Kinixys Bell, 1827.*

Kinixys belliana belliana Gray, 1831.
General distribution of the species: Africa S of the Sahara, South West Africa and the most of Rep. South Africa excluded; subsp. *belliana*: E Africa from central Somalia S to Rep. South Africa (Zululand). *Somali distribution*: **NS** (WG); **SS** (LS, Ge, Bay, LJ).

Family **Cheloniidae** Günther, 1864.
Genus *Caretta* Rafinesque-Schmaltz, 1814.

Caretta caretta (Linnaeus, 1758).
General distribution: Indian, Pacific and Atlantic oceans; Mediterranean Sea. *Somali distribution*: **Somali coasts**.

Genus *Chelonia* Latreille, 1801.

Chelonia mydas (Linnaeus, 1758).
General distribution: Indian, Pacific and Atlantic oceans; Mediterranean Sea. *Somali distribution*: **Somali coasts**.

Genus *Eretmochelys* Fitzinger, 1843.

Eretmochelys imbricata (Linnaeus, 1766).
General distribution: Indian, Pacific and Atlantic oceans; Mediterranean Sea. *Somali distribution*: **Somali coasts.**

Genus *Lepidochelys* Fitzinger, 1843.

Lepidochelys olivacea (Eschscholtz, 1829).
General distribution: Indian, Pacific and Atlantic oceans. *Somali distribution*: **Somali coasts.**

Family **Dermochelyidae** Gray, 1825.
Genus *Dermochelys* Blainville, 1816.

Dermochelys coriacea (Vandelli, 1761).
General distribution: Indian, Pacific and Atlantic oceans; Mediterranean Sea. *Somali distribution*: **Somali coasts**.

Family **Trionychidae** Bell, 1828.
Genus *Trionyx* Geoffroy, 1809.

Trionyx triunguis (Forsskål, 1775).
General distribution: Africa S of the Sahara, except the most of S Africa (present only in Angola); Egypt along the Nile; S Anatolia; NW Syria; Israel. *Somali distribution*: **SS** (Shebelli and Juba rivers).

Family **Pelomedusidae** Cope, 1868.
Genus *Pelomedusa* Wagler, 1830.

Pelomedusa subrufa (Lacépède, 1788).
General distribution: from Senegal and Ethiopia to Rep. South Africa; SW Arabia; Madagascar. *Somali distribution*: **NS** (Sa, B, No); **SS** (MS, Bay).

Genus *Pelusios* Wagler, 1830.

Pelusios sinuatus (Smith, 1838).
General distribution: E Africa from S Somalia to Kwazulu, westwards to Lake Tanganyika and Victoria Falls. *Somali distribution*: **SS** (H, MS, LS, Ge, MJ, LJ).

Order CROCODILIA Gmelin, 1788.
Family **Crocodilidae** Cuvier, 1807.
Genus *Crocodylus* Laurenti, 1768.

Crocodylus niloticus pauciscutatus Deranijagala, 1948.
General distribution of the species Crocodylus niloticus Linnaeus, 1768: Africa S of the Sahara, Egypt, Madagascar; subsp. *pauciscutatus*: Ethiopia, S Somalia, Kenya. *Somali distribution*: **SS** (Shebelli and Juba rivers).

Order SQUAMATA Oppel, 1811.
Family **Gekkonidae** Gray, 1825.
Genus *Hemidactylus* Gray, 1825.

Hemidactylus albopunctatus Loveridge, 1947.
General distribution: NW Somalia. *Somali distribution*: **NS** (WG, T).

Hemidactylus arnoldi Lanza, 1978.
General distribution: NW Somalia. *Somali distribution*: **NS** (WG: 11° N - 43° E).

Hemidactylus barodanus Boulenger, 1901.
General distribution: N Ethiopia to NW Somalia. *Somali distribution*: **NS** (WG, T) *Remarks*: synonym of *H. jubensis* Boulenger, 1895?

Hemidactylus bavazzanoi Lanza, 1978.
General distribution: SW Somalia and, according to Drewes R. C. (*in litteris* 23.VII.1988), at Mandera (North Eastern Province, close to the Somali frontier, NE Kenya). *Somali distribution*: **SS** (Ge: 93°40′ N - 42°40′ E).

Hemidactylus citernii Boulenger, 1912.
General distribution: Somalia. *Somali distribution*: **AS** (WG, Sa, B, No, G, H, Bay).

Hemidactylus curlei Parker, 1942.
General distribution: NW Somalia. *Somali distribution*: **NS** (WG).

Hemidactylus flaviviridis Rüppell, 1835.
General distribution: from the Red Sea (Sudan; Ethiopia) and Gulf of Aden coasts (introduced) and Sokotra Island (introduced ?) to N India through Arabia, Irak, S Iran, Afghanistan and Pakistan. *Somali distribution*: **NS** (WG: Berbera; B: Bosaso).

Hemidactylus fragilis Calabresi, 1915.
General distribution: SW Somalia. *Somali distribution*: **SS** (Bay: Bur Meldac, about 56 km S of Dinsor).

Hemidactylus frenatus Duméril et Bibron, 1836.
General distribution: an oriental gecko, whose wide range must be partly attributed to human agency: S Africa; S Somalia; Kenya and Lamu Island; Madagascar; Mauritius; Nepal; India; Ceylon; Maldives; Nicobars and Andamans; Assam; Burma; Thailand; Cambodia; Vietnam; Malaysia; S China; Corea; Formosa; Japan (Okinawa Island); Philippines; Suli Island; Indo-Australian Archipelago; New Guinea; W Australia; Oceania; St Helena Island; Mexico. *Somali distribution*: **SS** (M; MS; LS; Bay; MJ; LJ, including Ciuai Island).

Hemidactylus funaiolii Lanza, 1978.
General distribution: from S Somalia to central Kenya (Archer's Post: 00°39′ N - 37°41′ E). *Somali distribution*: **SS** (Bay: Berdale, about 50 km by air W-NW of Baidoa).

Hemidactylus granchii Lanza, 1978.
General distribution: from central to SE Somalia. *Somali distribution*: **CS** (Mu: about 06° N - 48°30′ E and 06°30′ N - 47°25′ E); **SS** (MS: about 02°20′ N - 45°40′E).

Hemidactylus isolepis Boulenger, 1895.
General distribution: Ethiopia; Somalia; N Kenya. *Somali distribution*: **NS** (WG, T); **SS** (Ge).

Hemidactylus klauberi Scortecci, 1948.
General distribution: SW Somalia. *Somali distribution*: **SS** (MJ: Gelib).

Hemidactylus laevis Boulenger, 1901.
General distribution: NW Somalia. *Somali distribution*: **NS** (T: Mount Gaan Libah, about 09°52′ N - 44°48′ E).

Hemidactylus macropholis Boulenger, 1896.

General distribution: from N and E Ethiophia and Somalia to N Kenya. *Somali distribution*: **AS** (all the regions but LJ).

Hemidactylus megalops Parker, 1932.
General distribution: N Somalia. *Somali distribution*: **NS** (Sa: 10°13′ N - 48°46′ E; No: 08°54′ N - 48°54′ E).

Hemidactylus mercatorius Gray, 1842.
General distribution: Madagascar; Seychelles; Mauritius; Aldabra and Pemba islands; E Africa to Mozambique. *Somali distribution*: **SS** (LJ).

Hemidactylus ophiolepoides Lanza, 1978.
General distribution: NW Somalia. *Somali distribution*: **NS** (WG: 09°55′ N - 43°10′ E; T: 08°34′ N - 45°15′ E).

Hemidactylus platycephalus Peters, 1854.
General distribution: E Africa from S Somalia to Mozambique and E Zimbabwe; Lamu, Pemba, Zanzibar, Mafia and Anjoana (Comores) islands. *Somali distribution*: **SS** (including Ciuai, Coiama and Ngumi islands (Bagiuni Islands = Juba Islands).

Hemidactylus puccionii Calabresi, 1927.
General distribution: central and SE Somalia. *Somali distribution*: **CS; SS** (MS, M).

Hemidactylus robustus Heyden, 1827.
General distribution: periphery of Arabia; coasts of Iran and Pakistan; W coast of Red Sea from Egypt to Somalia and Kenya; Zanzibar (introduced). *Somali distribution*: **AS** (all the regions but G and MJ). *Remarks*: according to my opinion, this is a full species, not a subspecies of *H. turcicus* Linnaeus, 1758 as tentatively suggested by Arnold (1980). Regarding the synonymy with *H. karachiensis* Murray, 1884 and *H. parkeri* Loveridge, 1936 see Salvador (1981: 99) and Arnold (1986b: 419).

Hemidactylus ruspolii Boulenger, 1896.
General distribution: from N Ethiopia and Somalia to N Kenya. *Somali distribution*: **AS** (T, No, Mu, H, M, LS, Bay, Ge, LJ).

Hemidactylus sinaitus Boulenger, 1885.
General distribution: Sinai ? [according to Arnold (1977: 104), the type locality of the species is almost certainly erroneous]; South Yemen; coastal Sudan; N Ethiopia; N Somalia. *Somali distribution*: **NS** (WG: 11°25′ N - 43°15′ E; Sa: Las Khoreh, 11°10′ N - 48°16′ E).

Hemidactylus smithi Boulenger, 1895.

General distribution: E Ethiopia and Somalia. *Somali distribution*: **AS** (WG, T, Sa, B, CS, M ?) *Remarks*: *H. jubensis* Boulenger, 1895 is a synonym (partim).

Hemidactylus somalicus (Parker, 1932).
General distribution: N Somalia. *Somali distribution*: **NS** (T, Sa, B, No).

Hemidactylus squamulatus squamulatus Tornier, 1896.
General distribution of the species: E Africa from southernmost Somalia to central Tanzania (subsp. *squamulatus*); two other subspecies (or full species ?): *floweri* Werner, 1908 (Sudan: Blue Nile), and *barbouri* Loveridge, 1942 (coastal Kenya and Tanzania, from Malindi to Tanga). *Somali distribution*: **SS** (Ge: Dinsor; LJ: Ola Uager, 01°11′ S - 41°34′ E, and Afmadu, 00°31′ N - 42°04′ E).

Hemidactylus taylori Parker, 1932.
General distribution: NE Somalia. *Somali distribution*: **NS** (Sa: 09°45′ N - 49° E; B: Gardò, 09°30′ N - 49°03′ E; No: 09°10′ N - 49° E).

Hemidactylus tropidolepis Mocquard, 1888.
General distribution: from NW Somalia and adjacent parts of Ethiopia to NE Kenya (Tana River). *Somali distribution*: **AS** (T, No, G, H, MS, LS, Bay, Ge, LJ). *Remarks*: actually a full species, sympatric with *H. squamulatus squamulatus* at Afmadu (00°31′ N - 42°04′ E) and Dinsor (02°24′ N - 42°59′ E).

Hemidactylus yerburii Anderson, 1895.
General distribution: N Somalia; S Arabia. *Somali distribution*: **NS** (WG, Sa, B, No). *Remarks*: as «this species, as presently understood, is extremely variable» (Arnold, 1986b), the validity of the subsp. *pauciporosus* Lanza, 1978 becomes uncertain (Arnold, 1980).

Genus *Hemitheconyx* Stejneger, 1893.

Hemitheconyx taylori Parker, 1930.
General distribution: N Somalia. *Somali distribution*: **NS**.

Genus *Holodactylus* Boettger, 1893.

Holodactylus africanus Boettger, 1893.
General distribution: E and S Ethiopia, Somalia and N Kenya. *Somali distribution*: **AS** (all the regions but H and Ba).

Holodactylus cornii Scortecci, 1931.
General distribution: NE, central and SE Somalia. *Somali distribution*: **AS** (B, No, Mu, LS).

Genus *Homopholis* Boulenger, 1885.

Homopholis fasciata Boulenger, 1890.
General distribution: from SE Ethiopia and Somalia to Kenya and Tanzania. *Somali distribution*: **AS** (Sa, No, G, H, LJ).

Genus *Lygodactylus* Gray, 1864.

Lygodactylus gutturalis (Bocage, 1873).
General distribution: from Senegal to Ethiopia and SW Somalia, south to Katanga along the Rift Valley. *Somali distribution*: **SS** (Ba: Oddur, 04°10′ N - 43°53′ E, and Uegit, 03°48′ N - 43°14′ E).

Lygodactylus scorteccii Pasteur, 1959.
General distribution: S Somalia and E Kenya; S Ethiopia ? *Somali distribution*: **SS** (MS, LS, M, MJ, LJ).

Lygodactylus somalicus somalicus Loveridge, 1935.
General distribution of the species: from SE Ethiopia and Somalia to N Kenya; subsp. *somalicus*: NE Somalia. *Somali distribution*: **NS** (Sa, No).

Lygodactylus somalicus battersbyi Pasteur, 1962.
General distribution of the subspecies: SE Ethiopia; NW, central and S Somalia; N Kenya. *Somali distribution*: **AS** (WG, T, CS, H, MS, M, Bay, Ge, LJ).

Genus *Pristurus* Rüppell, 1835.

Pristurus crucifer (Valenciennes, 1861).
General distribution: N and E Ethiopia; SW Arabia; Somalia. *Somali distribution*: **AS** (Sa, T, B, No, CS, H, MS, LS, M, Ge).

Pristurus flavipunctatus Rüppell, 1835.
General distribution: Sudan; Ethiopia; SW Arabia; Djibouti; N, central and SE Somalia. *Somali distribution*: **AS** (NS, CS, H).

Pristurus phillipsi Boulenger, 1895.
General distribution: Somalia. *Somali distribution*: **AS** (WGn T, B, No, CS, H, MS, Bay).

Pristurus rupestris Blanford, 1874.
General distribution: from coastal Pakistan (?) and S Iran to N Somalia, through the islands of Persian Gulf, SW Jordan, Arabia and Djibouti. *Somali distribution*: **NS** (WG, B).

Pristurus simonettai (Lanza et Romoli Sassi, 1968).
General distribution: coastal Somalia from Mogadishu to Sar Uanle, about 20 km S of Kismayu. *Somali distribution*: **SS** (M, LS, MJ, LJ).

Genus *Ptyodactylus* Gray, 1825.

Ptyodactylus hasselquisti ragazzi Anderson, 1898.
General distribution of the species: from Algerian Sahara, Mali, Ghana and Nigeria to Sudan, N Ethiopia, Djibouti and N Somalia (subsp. *ragazzi*);

Egypt (Nile Valley), Sinai and Arabia [subsp. *hasselquisti* (Donndorff, 1798)]; according to Arnold (1980 and 1986b the species reaches also Syria, Irak and SW Iran. *Somali distribution*: **NS** (WG). *Remarks*: the characters of 8 specimens from Djibouti [M.Z.U.F., Firenze; M.N.H.N., Paris; B.M. (N.H.)] and 8 Somali specimens [B.M.(N.H.)] studied by me are in accordance with those given by Heimes (1987) for *P.h. ragazzi*. As pointed out by Arnold (1986b), also within Arabia there is considerable geographical variations; according to my opinion this «species» still needs revision on a vast scale.

Genus *Tarentola* Gray, 1825.

Tarentola annularis annularis (Geoffroy, 1809).
General distribution of the species: Africa N of the Equator, with a rather discontinuous range, and Sinai (subsp. *annularis*); southernmost Sudan and Mora (NW Cameroon) (subsp. *relicta* Joger, 1984). *Somali distribution*: **NS** (WG, Sa, B).

Genus *Tropiocolotes* Peters, 1880.

Tropiocolotes somalicus Parker, 1942.
General distribution: NW Somalia and almost surely in the adjacent parts of Ethiopia. *Somali distribution*: **NS** (WG: 10°20′ N - 42°50′ E, 10°45′ N - 43° E and 11°25′ N - 43°15′ E; Biji = 10°10′ N - 44°05′ E).

Family **Agamidae** Gray, 1827.
Genus *Agama* Daudin, 1802.

Agama bottegi Boulenger, 1898.
General distribution: SW Somalia. *Somali distribution*: **SS** (Ge, Bay).

Agama persimilis Parker, 1942.
General distribution: from Somalia and adjacent parts of Ethiopia to E Kenya [ca. 2 km NE of Mandera, close to the border with the Somali region Gedo, R. C. Drewes and S. Spawls leg. 10.VII.1971; Wajir Bor, ca. 48 km E of Waijr, R.C. Drewes leg. 10-11.IX.1975; Tolotwa, ca. 7.7 km S of Ngomeni, Kitui District, J. Vindum leg. 24.VI.1986 (R. C. Drewes, personal communication)]. *Somali distribution*: **AS** (T, CS, H).

Agama robecchii Boulenger, 1891.
General distribution: N, central and SE Somalia. *Somali distribution*: **AS** (T ?, Sa, B, No, Mu, MS, M).

Agama rueppelli rueppelli Vaillant, 1895.
General distribution of the species: E Ethiopia and N Somalia (subsp. *rueppelli*); S Ethiopia and N Kenya (subsp. *occidentalis* Parker, 1932); central and S Kenya (subsp. *septentrionalis* Parker, 1932). *Somali distribution*: **NS**.

Agama rueppelli subsp.
Somali distribution: **CS** (Mu); **SS** (MS, Bay).

Agama spinosa Gray, 1831.
General distribution: from Egypt to N Ethiopia, Djibouti and N Somalia.
Somali distribution: **NS** (WG, T, Sa, B).

Agama sp. (unidentified *agama*-like species). *Somali distribution*: **SS** (LJ).

Genus *Stellio* Laurenti, 1768.

Stellio annectens (Blanford, 1870).
General distribution: N and Ethiopia; Djibouti; Somalia. *Somali distribution*: **NS** (WG, Sa, No, B); **SS** (H).

Stellio atricollis (Smith, 1849).
General distribution: E Africa from N Ethiopia and NW Somalia to Natal, through Kenya, Uganda, Tanzania, Katanga, Zambia, Mozambique, Zimbabwe and Transvaal; Kivu Mts; Angola; NW Somalia. *Somali distribution*: **NS** (WG). *Remarks*: the Somali population could belong to the subsp. *minutus* (Klausewitz, 1957).

Stellio phillipsi (Boulenger, 1895).
General distribution: N Ethiopia; NW Somalia. *Somali distribution*: **NS** (WG, T).

Genus *Uromastyx* Merrem, 1826 ([3]).

Uromastyx ocellata macfadyeni Parker, 1932.
General distribution of the species[according to Joger (1987, fig. 1) and Joger (*in litteris*, 30.VIII.1988)]: subsp. *macfadyeni* (NW Somalia, Djibouti, coastal Eritrea); subsp. *ocellata* Lichtenstein, 1823 (Sudanaese coast of the Red Sea); subsp. *ornata* Heyden, 1827 (coasts of the northern third of the Red Sea); subsp. *philbyi* Parker, 1938 (southern two thirds of the Arabian coast of the Red Sea). *Somali distribution*: **NS** (WG).

Uromastyx princeps O'Shaugnessy, 1880.
General distribution: NE Somalia and NE central Somalia. *Somali distribution*: **NS** (Sa, B, No); **CS** (Mu). *Remarks: Uromastyx princeps scorteccii* Cherchi, 1954 could either be not valid, a subspecies or a full species.

([3]) According to Lanza (1983, p. 208, footnote), *vox clamantis in deserto*, as the Greek word μάστιξ is of feminine gender, also the name of the genus is feminine: *Uromastyx acanthinura, U. aegyptia*, a.s.o. Recently my suggestion has been followed by Schätti (1989).

Genus *Xenagama* Boulenger, 1895.

Xenagama batillifera (Vaillant, 1882).
General distribution: N Somalia and adjacent parts of Ethiopia. *Somali distribution*: **NS** (WG, Sa, B).

Xenagama taylori Parker, 1935.
General distribution: NW Somalia. *Somali distribution*: **NS** (T).

Family **Chamaeleonidae** Gray, 1827.
Genus *Chamaeleo* Laurenti, 1768.

Chamaeleo calcaricarens Böhme, 1985.
General distribution: Ethiopia, Djibouti, N Somalia. *Somali distribution*: **NS** (WG, B).

Chamaeleo dilepis dilepis Leach, 1819.
General distribution of the species: most of Africa S of the Sahara; subsp. *dilepis*: Zaire; Gabon; Guinea; Uganda; S Somalia; Kenya; Tanzania; Malawi, Mozambique; Zambia; Zimbabwe; Rep. South Africa; N South West Africa; Angola. *Somali distribution*: **SS** (M, LS, Ge).

Chamaeleo gracilis gracilis Hallowell, 1842.
General distribution of the species: Zaire, Central African Republic, Gabon, Cameroon, Nigeria, Ghana, Ivory Coast, Liberia, Sierra Leone, Guinea, Gambia, Senegal, Uganda, Somalia, Tanzania, Kenya, Ethiopia, Sudan (subsp. *gracilis*); Zaire, Gabon and Angola (subsp. *etiennei* Schmidt, 1919). *Somali distribution*: **NS** ? (B: 10°09′ N - 49° E ?); **SS** (MS, M, LS, Bay, Ge, LJ).

Chamaeleo quilensis Bocage, 1866.
General distribution: Togo; Nigeria; Cameroon; Gabon; Congo; Zaire; Angola; Uganda; S Somalia; Kenya; Tanzania; Malawi; Mozambique; Zambia; Zimbabwe; Rep. South Africa. *Somali distribution*: **SS** (Bay, Ge, MJ, LJ). *Remarks*: De Witte (1965) writes: «Le *Ch. quilensis* est très semblable au *Ch. dilepis dilepis*... Les formes intermédiaires semblent être assez fréquents, d'autre part, ainsi que j'ai pu le constater à maintes reprises, les deux espèces se rencontrent dans les mêmes régions et parfois dans les mêmes localités, on ne saurait donc considerer le *Ch. quilensis* comme une sous-espèce du *Ch. dilepis*. Faut-il admettre que la forme *quilensis* ne soit qu'une simple variation du *Ch. dilepis*, qui dans ce cas ne mériterait pas d'être érigée au rang d'une unité taxonomique même subordonnée? ou bien faut-il lui donner le rang d'espèce? C'est à cette dernièr solution que je me suis rangè provisoirement». According to Broadley (1966) *C. quilensis* is a junior synonym of *C. dilepis*.

Chamaeleo ruspolii Boettger, 1893.
General distribution: NW Somalia and adjacent parts of Ethiopia (N Ogaden). *Somali distribution*: **NS** (T).

Genus *Rhampholeon* Günther, 1874.

Rhampholeon kersteni robecchii (Boulenger, 1892).
General distribution of the species: from Tanzania to N Kenya [subsp. *kersteni* (Peters, 1868)] and from N Kenya to N Somalia (subsp. *robecchii*). *Somali distribution*: **AS** (NS, Mu, MS, M, LS, Bay, LJ). *Remarks*: according to Loveridge (1957) both forms occur in N Kenya but there is no evidence about their sympatry; actually they could be full species.

Family **Scincidae** Gray, 1825.
Genus *Chalcides* Laurenti, 1768.

Chalcides ocellatus ocellatus (Forsskål, 1775).
General distribution of the species: S countries of the Mediterranean subregion (*sensu* Wallace); Arabia; N and S Somalia; subsp. *ocellatus*: from S Tunisia to Sind, through Libya (Barca excluded); Egypt, Greece, and Arabia; N Somalia and E parts of S Somalia. *Somali distribution*: **NS** (WG, Sa, B); **SS** (MS, M, LS).

Chalcides ocellatus sacchii Lanza, 1954.
General distribution of the subspecies: W parts of S Somalia. *Somali distribution*: **SS** (Ge: Lugh). *Remarks*: Pasteur (1981) writes: «...the melanic type described by Lanza (1954) as *sacchii* could also be, with its striklingly different spotting pattern from *ocellatus*, a separate species. Three specimens from Lugh and one from Mogadishio (see Lanza and Carfì, 1968) are meager data from which to venture favoring either morphe or species status. (What the form *sacchii* certainly is not is a subspecies, since it is sympatric with *ocellatus* in Mogadishio and no intermediate are observed.)». I perfectly agree with all Pasteur's remarks except the last one; in fact a phenotype typical for a given subspecies may also occur in other subspecies. Furthermore, it cannot be excluded that the melanic specimen from Mogadishu was passively transported to this locality from the Lugh area.

Chalcides ragazzii Boulenger, 1890 subsp.?
General distribution according to Pasteur (1981): Air; E Hoggar; Sudan; Ethiopia; N Somalia. *Somali distribution*: **NS** (WG, T, Sa).

Genus *Cryptoblepharus* Wiegmann, 1834.

Cryptoblepharus africanus (Sternfeld, 1918).
General distribution: rocky coastal stretches of Somalia, Kenya (including Manda, Lamu and Mombasa islands), Tanzania with Pemba, Zanzibar and

Mafia islands, Mozambique and perhaps N Zululand. *Somali distribution*: **SS** [Ge (Lugh) ?, MS, M, LS, LJ (including Ciuai and Coiama islands)].

Genus *Haackgreerius* Lanza, 1983.

Haackgreerius miopus (Greer et Haacke, 1982).
General distribution: S central Somalia. *Somali distribution*: **CS** (G: 04° N - 47° E).

Genus *Lygosoma* Hardwicke et Gray, 1827.

Lygosoma afrum (Peters, 1854).
General distribution: Sudan; Ethiopia; Somalia; Zaire; Uganda; Kenya; Tanzania (and Zanzibar); E Zambia; S Malawi; Mozambique. *Somali distribution*: **AS** (WG, Sa, Mu, SS).

Lygosoma grandisonianum (Lanza et Carfì, 1966).
General distribution: NE Somalia and N central Somalia. *Somali distribution*: **NS** (B); **CS** (Mu).

Lygosoma laeviceps (Peters, 1874).
General distribution: SE Somalia. *Somali distribution*: **SS** (M, LS).

Lygosoma paedocarinatum (Lanza et Carfì, 1968).
General distribution: NW Somalia and adjacent parts of Ethiopia (N Ogaden). *Somali distribution*: **NS** (T). *Remarks*: according to me, the morphological differences between *L. laeviceps* and *L. paedocarinatum* (described as *Mochlus laeviceps paedocarinatus*) justify their separation at specific level.

Lygosoma mabuiiforme (Loveridge, 1935).
General distribution: S Somalia; N coastal Kenya (Ngatana, at the mouth of the Tana River). *Somali distribution*: **SS** (MS, MJ).

Lygosoma productum Boulenger, 1909.
General distribution: S Somalia. *Somali distribution*: **SS** (MS, Ge, Bay, MJ, LJ).

Lygosoma simonettai Lanza, 1979.
General distribution: SE Somalia. *Somali distribution*: **SS** (LS: Afgoi).

Lygosoma somalicum (Parker, 1942).
General distribution: NW Somalia; E Ethiopia ?([4]) *Somali distribution*: **NS** (WG, T). *Remarks*: according to me, the morphological differences between *L. sundevalli modestum* (described as *Sepacontias modestus*) and *L. sundevalli somalicum* (described as *Riopa modesta somalica*) justify their separation at specific level.

([4]) The «*Lygosoma modestum*» from Sheik Hussein (07°45' N - 40°50' E, E Ethiopia) quoted by Boulenger (1895) could belong to *Lygosoma somalicum* (Parker, 1942).

Lygosoma sundevalli modestum (Günther, 1880).
General distribution of the species: SW Zaire (Katanga), S Angola, N and central South West Africa, E through Zimbabwe, Zambia, Malawi, Tanzania and Kenya to S Somalia; E Ethiopia ?([4]). The subsp. *modestum* (nostril usually between two shields) occurs in central, E and N Tanzania, E Kenya and S Somalia according to Parker (1942); the other subspecies, *sundevalli* (A. Smith, 1849) (nostril usually between three shields), occurs in the rest of the range; populations with nostril between 2 or 3 shields in varying proportions can be found, according to Broadley (1966), in N South West Africa, S Angola, N Botswana, NW Zimbabwe, Zambia and Malawi. *Somali distribution*: **SS** (LS, LJ).

Lygosoma tanae (Loveridge, 1935).
General distribution: S Somalia; N coastal Kenya (mouth of the Tana River). *Somali distribution*: **SS** (M, LJ).

Lygosoma vinciguerrae Parker, 1932.
General distribution: Somalia. *Somali distribution*: **AS** (T, No, G, LS, Ge).

Genus *Mabuya* Fitzinger, 1826.

Mabuya brevicollis (Wiegmann, 1837, page 133, line 2).
General distribution: Sudan; Ethiopia; Aschik Island; Arabia [«Saudi Arabia (Taif to Asir in Southwest; Bureidah and Riyadh area), North Yemen, South Yemen, Dhofar» according to Arnold, 1986b]; Djibouti; Somalia; Uganda; Kenya; Tanzania. *Somali distribution*: **AS** (all the regions but M and Ba). *Remarks*: almost certainly two or more sibling species are hidden under the name *brevicollis*; at present the following names are considered to be junior synonyms: *Euprepes pyrrhocephalus* Wiegmann, 1837 (page 133, line 38) (type locality: Aschik Island, Red Sea), *Tiliqua burtoni* Blyth, 1856 (type locality: «Somali Country»), *Mabuya chanleri* Stejneger, 1893 (type locality: Tana River, Kenya), *Mabuia* (sic!) *Rothschildi* Mocquard, 1905 (type locality: Endessa, 08°40′ N - 40° E, Ethiopia), *Mabuya pulchra* Matschie, 1893 [type locality: Lahadsch (= Lahej), near Aden], and *Mabuia* (sic!) *somalica* Calabresi, 1915 (Bardera and Goriei, near Bardera, S Somalia).

Mabuya ferrarai Lanza, 1978.
General distribution: S. Somalia. *Somali distribution*: **SS** (MS: Balad; LS: Afgoi).

Mabuya hemmingi Laurent et Gans, 1965.

General distribution: N Somalia. *Somali distribution*: **NS** (WG, Sa, B, No).

Mabuya hildebrandti (Peters, 1874).
General distribution: Somalia. *Somali distribution*: **AS** (Sa, B, No, Mu, MS, M, LS, Ge, LJ).

Mabuya maculilabris maculilabris (Gray, 1845).
General distribution: both the species and the subsp. *maculilabris* are widely distributed in Africa south of the Sahara. *Somali distribution*: **SS** (M, MJ, LJ).

Mabuya planifrons (Peters, 1878).
General distribution: Tanzania, Kenya, Ethiopia, Somalia. *Somali distribution*: **AS** (WG; T; No; G; MS; M; Bay; Ge; MJ; LJ, including Coiama Island).

Mabuya quinquetaeniata quinquetaeniata Lichtenstein, 1823).
General distribution of the species: Egypt and Africa south of Sahara; the subsp. *quinquetaeniata* occupies approximately the portion north of Uganda and east of the Ubangi and Shari rivers. *Somali distribution*: **NS** (WG).

Mabuya striata striata (Peters, 1844).
General distribution: the species has a wide distribution in E, central and S Africa; subsp. *striata*: from Ethiopia and SE Sudan, S to Natal, W to E Zaire, Malawi, SE Zimbabwe, N and E Transvaal. *Somali distribution*: **NS** (WG, T, Sa, B); **SS** (H, MS, M, LS, Ba, MJ, LJ).

Mabuya varia varia (Peters, 1867).
General distribution of the species: from Sudan and Ethiopia to Rep. South Africa, through Uganda, Kenya, Tanzania, Malawi and Mozambique; South West Africa, and Angola; at least other two forms seem to be valid subspecies, in addition to the nominate one: *M. v. isselii* Peters, 1871 from Eritrea, probably a full species, and *M. v. nyikae* Loveridge, 1953, from Malawi. *Somali distribution*: **NS** (WG, Sa, B).

Genus *Panaspis* Cope, 1868.

Panaspis wahlbergi (A. Smith, 1849).
General distribution: E Africa from Ethiopia to Natal (Rep. South Africa), W to South West Africa, NE through Angola to Zaire. *Somali distribution*: **NS** (WG, B, No); **SS** (H, MS, Ba, Bay, Ge, MJ, LJ).

Family **Cordylidae** Mertens, 1937.
Genus *Gerrhosaurus* Wiegmann, 1828.

Gerrhosaurus flavigularis fitzsimonsi Loveridge, 1942.
General distribution of the species: E Africa from Sudan to Rep. South Africa; subsp. *fitzsimonsi*: Sudan, Ethiopia, Kenya, SE Somalia, Tanzania. *Somali distribution*: **SS** (MS, LS).

Gerrhosaurus major major Duméril, 1851.
General distribution o the subspecies: S Ethiopia and S Somalia, S to Zululand (Rep. South Africa), reaching its W limits in the Hwange District of Zimbabwe (Broadley, 1987). For the other subspecies see below. *Somali distribution*: **SS** (MS, LS, Bay).

Gerrhosaurus major bottegoi Del Prato, 1895.
General distribution of the subspecies: N Ethiopia, NW Somalia and W Kenya to Ghana. *Somali distribution*: **NS** (WG).

Family **Lacertidae** Bonaparte, 1831.
Genus *Eremias* Wiegmann, 1834 ?

Eremias (?) *ercolinii* Lanza et Poggesi, 1975.
General distribution: S central Somalia. *Somali distribution*: **CS** (G: Bud Bud, 04°15′ N - 46°30′ E).

Genus *Heliobolus* Fitzinger, 1843.

Heliobolus spekii scorteccii (Arillo, Balletto et Spanò, 1965).
General distribution of the species: from S Sudan, S Ethiopia and N Somalia to Tanzania through Uganda and Kenya; subsp. *scorteccii*: NE Somalia and N central Somalia. *Somali distribution*: **NS** (B); **CS** (Mu).

Heliobolus spekii sextaeniatus (Stejneger, 1894).
General distribution of the subspecies: seemingly the same as the species, except the countries in which the subsp. *spekii* (Günther, 1872) [«Kenya Colony (south of Tana River), south to central Tanganyika Territory» (Loveridge, 1957)] and *scorteccii* occur. *Somali distribution*: **AS** (WG, T, No, G, H, MS, M, LS, Ge, Bay, LJ).

Genus *Latastia* Bedriaga, 1884.

Latastia boscai boscai Bedriaga, 1884.
General distribution of the species: Djibouti (Schätti, 1989), Ethiopia and Somalia; subsp. *boscai*: from NE Ethiopia (Eritrea) and Djibouti to NW Somalia. *Somali distribution*: **NS** (W part of WG).

Latastia boscai arenicola Parker, 1942.
General distribution of the subspecies: Somalia and SE Ethiopia (Ogaden). *Somali distribution*: **AS** (T, No, Mu, Ge).

Latastia boscai burii Boulenger, 1907.
General distribution of the subspecies: N Somalia([5]). *Somali distribution*: **NS** (WG, Sa, B, No).

([5]) The specimen from the region Sanaag, quoted by Parker (1942), was collected on Al Mado Mts, 11°03′N - 48° (misprinted 40° in Parker) 47′ E.

Latastia boscai subsp.
Somali distribution: **SS** (H, MS, LJ).

Latastia caeruleopunctata Parker, 1935.
General distribution: Somalia and Ogaden (Ethiopia). *Somali distribution*: **AS** [T, CS, H (E of the Shebelli River)].

Latastia carinata (Peters, 1875).
General distribution: coastal S Somalia. *Somali distribution*: **SS** (MS, LS, LJ).

Latastia cherchii Arillo, Balletto et Spanò, 1967.
General distribution: central Somalia. *Somali distribution*: **CS** (Mu: zone of Obbia).

Latastia doriai doriai Bedriaga, 1884.
General distribution of the species: NW Somalia and adjacent parts of Djibouti and Ethiopia; subsp. *doriai*: NW Somalia and adjacent parts of Ethiopia. *Somali distribution*: **NS** (WG: S of the range of the subsp. *scorteccii*, between 10°30′ N - 42°40′ E and 09°50′ N - 43°20′ E).

Latastia doriai scorteccii Arillo, Balletto et Spanò, 1967.
General distribution of the subspecies: NW Somalia and adjacent parts of Ethiopia and Djibouti. *Somali distribution*: **NS** (WG, N of the range of the subsp. *doriai*).

Latastia longicaudata longicaudata (Reuss, 1834).
General distribution of the species: SW Arabia; Sinai; from Nigeria to Sudan, S to Zaire and Tanzania through Ethiopia, Somalia and Kenya; subsp. *longicaudata*: from Tor (Sinai) to N Somalia along the coastal belt of the Red Sea and Gulf of Aden. *Somali distribution*: **NS** (WG, B).

Latastia longicaudata lanzai Arillo, Balletto et Spanò, 1967.
General distribution of the subspecies: S Somalia and almost surely the adjacent parts of Ethiopia and Kenya; Tanzania? *Somali distribution*: **SS**.

Latastia longicaudata revoili (Vaillant, 1882).
General distribution of the subspecies: N and central Somalia; almost surely also the adjacent parts of Ethiopia (Ogaden). *Somali distribution*: **NS** (WG, Sa, B, No); **CS** (Mu).

Latastia taylori Parker, 1947.
General distribution: NE Somalia. *Somali distribution*: **NS** (Sa, B, No).

Genus *Mesalina* Gray, 1838.

Mesalina martini (Boulenger, 1897).
General distribution: from Sinai and W coasts of the Red Sea to NW Somalia; SW Arabia. *Somali distribution*: **NS** (WG). *Remarks*: a full species according to Arnold (1986a).

Genus *Philochortus* Matschie, 1893.

Philochortus hardeggeri (Steindachner, 1891).
General distribution: Somalia and adjacent part of Djibouti and Ethiopia. *Somali distribution*: **AS** (WG, T, No, G, MS, LS).

Philochortus intermedius intermedius Boulenger, 1917.
General distribution of the species: Libya (subsp. *zolii* Scortecci, 1934, probably a full species); Somalia and adjacent parts of Ethiopia (subsp. *intermedius*); NW Kenya (Lake Rudolf: subsp. *rudolfensis* Parker, 1932); E. Kenya [(subsp. ?) Mandera, 03°56′ N - 41°52′ E, R.C. Drewes leg. 10-11.VII.1971; Wajir Bor, ca. 48 km E of Wajir, R. C. Drewes leg. 11.IX.1975; Laisamis, 01°36′ N - 37°48′ E, R.C. Drewes leg. 1969 (R.C. Drewes, personal communication)]. *Somali distribution*: **AS** (WG, T, B, No, G, M, Ba, Ge).

Philochortus phillipsi (Boulenger, 1898).
General distribution: N and central Somalia; Ethiopia (Shoa). *Somali distribution*: **NS** (WG, Sa, B, No); **CS** (Mu).

Philochortus spinalis (Peters, 1875).
General distribution: NW Somalia; Ethiopia. *Somali distribution*: **NS** (WG).

Genus *Pseuderemias* Boettger, 1883.

Pseuderemias brenneri (Peters, 1869).
General distribution: Somalia and adjacent parts of Djibouti and Ethiopia. *Somali distribution*: **AS** (WG, T, B, No, CS, H, MS, M, LS, Ge).

Pseuderemias erythrosticta (Boulenger, 1891).
General distribution: N and central Somalia. *Somali distribution*: **NS** (T, B, No); **CS** (Mu).

Pseuderemias mucronata mucronata (Blanford, 1870).
General distribution of the species: Sinai (according to Marx, 1968 and Ščerbak, 1975); W coast of the Red Sea; Eritrea; N and central Somalia; subsp. *mucronata*: from the Sinai to N Somalia (eastwards to about 48° longitude) through the W coast of the Red Sea and Eritrea. *Somali distribution*: **NS** (WG, T, Sa).

Pseuderemias mucronata savagei Laurent et Gans, 1965).
General distribution of the subspecies: NE Somalia. *Somali distribution*: **NS** (E of 48° of longitude and N of the Darroy Valley (B).

Pseuderemias mucronata septemstriata (Parker, 1965).
General distribution of the subspecies: NE and central Somalia; almost surely adjacent parts of Ethiopia (easternmost Ogaden). *Somali distribution*: **NS** (B, No) and **CS** (Mu), S of the Darror Valley.

Pseuderemias smithi (Boulenger, 1895).
General distribution: NW and SE Somalia; E Ethiopia; N coastal Kenya S to the Tana River. *Somali distribution*: **NS** (WG); **SS** (Ge, Bay).

Pseuderemias striata striata (Peters, 1875).
General distribution of the species: Somalia and adjacent parts of Djibouti, Ethiopia, and Kenya; subsp. *striata*: central and S Somalia and adjacent parts of Ethiopia (Ogaden) and Kenya. *Somali distribution*: **CS** (G); **SS** (H, LS, Ba, Ge, Bay).

Pseuderemias striata gardoensis (Arillo, Balletto et Spanò, 1965).
General distribution of the subspecies: Somalia and adjacent parts of Djibouti and E Ethiopia (Ogaden). *Somali distribution*: **AS** (T, B, No, CS, MS).

Family **Varanidae** Gray, 1827.
Genus *Varanus* Merrem, 1820.

Varanus albigularis microstictus Boettger, 1893.
General distribution of the species: E and S Africa; subsp. *microstictus*: E Africa. *Somali distribution*: **NS; SS** (MS, M, LS, Bay, Ge, LJ).

Varanus niloticus niloticus (Linnaeus, 1758).
General distribution of the species: Africa S of the Mediterranean countries; subsp. *niloticus*: same range of the species, except the W forestal regions. *Somali distribution*: **SS** (in the Shebelli and Juba rivers and in the zone of Ola Uager, ca. 01°11'S - 41°34' E).

Family **Trogonophidae** Gray, 1844.
Genus *Agamodon* Peters, 1882.

Agamodon anguliceps anguliceps Peters, 1882.
General distribution of the species: central and S Somalia; subsp. *anguliceps*: S Somalia. *Somali distribution*: **SS** (MS, M, LS, Bay, Ge, MJ, LJ).

Agamodon anguliceps immaculatus Calabresi, 1927.
General distribution of the subspecies: central Somalia. *Somali distribution*: **CS** (Mu: Afghedud, 05°38' N - 47°50' E; G: 7 km NW of the Rugno Well, ca. 04° N - 47°E).

Agamodon compressus Mocquard, 1888.
General distribution: S coastal Somalia. *Somali distribution*: **SS** (M, MS).

Family **Amphisbaenidae** Gray, 1825.
Genus *Ancylocranium* Parker, 1942.

Ancylocranium somalicum somalicum (Scortecci, 1931).
General distribution of the species: N and S Somalia; subsp. *somalicum*: S coastal Somalia. *Somali distribution*: **SS** (MS, LS, LJ).

Ancylocranium somalicum parkeri Gans et Kochva, 1966.
General distribution of the subspecies: NW Somalia. *Somali distribution*: **NS** (T).

Family **Typhlopidae** Merrem, 1820.
Genus *Ramphotyphlops* Fitzinger, 1843.

Ramphotyphlops braminus (Daudin, 1803).
General distribution: continental and insular S Asia; Japan; tropical islands of Pacific and Indian oceans; New Guinea; N Australia (vicinity of Darwin); W Mexico; SE U.S.A. (Florida); coastal Tanzania; Mozambique; Rep. South Africa (?); Benin; Togo; Ivory Coast; Cameroon; S Somalia (Mogadishu). *Somali distribution*: **SS** (M). *Remarks*: Gasperetti's record from central Somalia (1988: 196, Fig. 11) is erroneous (J. Gasperetti, personal communication 30.VII.1989).

Genus *Rhinotyphlops* Fitzinger, 1843.

Rhinotyphlops leucocephalus (Parker, 1930).
General distribution: NW Somalia. *Somali distribution*: **NS** (T: Las Anod, 08°28′ N - 47°21′ E).

Rhinotyphlops schlegeli brevis (Scortecci, 1929).
General distribution of the species: most of Africa S of the Sahara; subsp. *brevis*: S Sudan; S Ethiopia; Uganda; N Kenya; N and S Somalia. *Somali distribution*: **NS** (WG, T, B); **SS** (LS, MJ, LJ).

Rhinotyphlops scorteccii (Gans et Laurent, 1965).
General distribution: coastal S Somalia. *Somali distribution*: **SS** (M, LS).

Rhinotyphlops unitaeniatus (Peters, 1878).
General distribution: Tanzania, Kenya, Somalia, SE Ethiopia (Largen & Rasmussen, in preparation). *Somali distribution*: **AS** (T, Mu, MS: phenotype «*ataeniatus*»; M, LS, Bay, Ge, MJ, LJ: phenotypes «*unitaeniatus*» and «*ataeniatus*»).

Genus *Typhlops* Oppel, 1811.

Typhlops cuneirostris Peters, 1879.
General distribution: N and central Somalia, and adjacent parts of Ethiopia. *Somali distribution*: **NS** (WG, T, No); **SS** (MS, M, LS, Bay, Ge, MJ, LJ).

Typhlops lineolatus Jan, 1863.
General distribution: intertropical Africa; S Somalia. *Somali distribution*: **SS** (MJ: zone of Mareri, SW of Gelib, ca. 00°30′ N - 42°46′ E).

Family **Leptotyphlopidae** Stejneger, 1891.
Genus *Leptotyphlops* Fitzinger, 1843.

Leptotyphlops cairi (Duméril et Bibron, 1844).
General distribution: isolated populations in Niger (?) and Mauritania (?); Egypt; Sudan; Ethiopia; N and S Somalia. *Somali distribution*: **NS** (WG; S ?) **SS** (MJ).

Leptotyphlops longicaudus (Peters, 1854).
General distribution: E African lowlands from S Somalia to the E Transvaal and Swaziland, reaching its W limit in Zimbabwe and E Botswana. *Somali distribution*: **SS** (MS; M; LS; Ba ?; LJ: Belet Amin ?).

Leptotyphlops macrorhynchus macrorhynchus (Jan, 1861).
General distribution of the species: Niger (subsp. *bilmaensis* Angel, 1936); subsp. *macrorhynchus*: W and N Africa (including Marocco: Destre *et al.*, 1989); SW Asia, N to Turkey and E to NW India; Sudan; Ethiopia (Largen: personal comm., 22.V.1990); NW Kenya; NE Somalia. *Somali distribution*: **NS** (B: Bosato, 11°17′ N - 49°11′ E, and Galgala Oasis, 11°00′ N - 49°03′ E).

Leptotyphlops nigricans nigricans (Schlegel, 1839).
General distribution of the species: Pemba Island (subsp. *pembae* Loveridge, 1941); subsp. *nigricans*: S Cape Province; central Zambia through E Angola, E Zaire, Rwanda and Tanzania (including Mafia Island); Kenya and Uganda to the S Sudan; S Somalia. *Somali distribution*: **SS** (Ge).

Leptotyphlops reticulatus (Boulenger, 1906).
General distribution: NW Somalia. *Somali distribution*: **NS** (WG).

Family **Boidae** Gray, 1825.
Genus *Eryx* Daudin, 1803 ([6]).

Eryx colubrinus (Linnaeus, 1758).
General distribution: Egypt S to Kenya and W to Niger. *Somali distribution*: **AS** (WG, T, B, CS, MS, M, Ba, Bay, LS, Ge, MJ, LJ).

Genus *Gongylophis* Wagler, 1830[6].

Gongylophis somalicus (Scortecci, 1939).
General distribution: N Somalia and presumably adjacent parts of Ethiopia (N Ogaden); S Somalia. *Somali distribution*: **NS** (WG, T, B); **SS** (M, MS).

([6]) Regarding the relationship between *Eryx* and *Gongylophis* see Rage (1972), Rieppel (1978) and Tokar' (1989).

Genus *Python* Daudin, 1803.

Python sebae sebae (Gmelin, 1789).
General distribution of the species according to Broadley, 1984: (subsp. *sebae*) «Africa south of the Sahara, from Senegal east to Ethiopia and Somalia, extending southwards into northern Angola (as far south as Ambriz on the coast), the Shaba Province of Zaire, interdigitating and some area intergrading with *P. s. natalensis* in Kenya and northern Tanzania»; (subsp. *natalensis* A. Smith, 1840) «Southcentral africa (i.e. southern Angola, south-eastern and eastern Zaire, Zambia, Burundi and southern Tanzania, south to northern Namibia, Botswana and the north-eastern parts of South Africa). Formerly found in the eastern parts of the Cape Province, but now extinct». *Somali distribution*: **SS** (MS, M, Bay, LS, Ge, MJ, LJ).

Family **Elapidae** Boie, 1827.
Genus *Dendroaspis* Schlegel, 1848.

Dendroaspis polylepis Günther, 1864.
General distribution: West Africa (cf. Håkansson & Madsen, 1983); from N and S Somalia and Ethiopia S to Swaziland, Transvaal and Lesotho, W to include Uganda, Zaire, Angola and Botswana. *Somali distribution*: **NS** (WG); **SS** (MJ: zone of Mareri, SW of Gelib, 00°30′ N - 42°46′ E).

[Probably present in the southernmost Somalia: *D. angusticeps* (A. Smith, 1849). *General distribution* (according to Broadley, 1983): «confined to the more thickly forested and bush-covered eastern side of Africa, from Kenya in the north, southwards through Tanzania, Moçambique, Malawi and eastern Zimbabwe to southern Natal and northern Pondoland»].

Genus *Elapsoidea* Bocage, 1866.

Elapsoidea chelazziorum Lanza, 1979 ([7]).
General distribution: S. Somalia. *Somali distribution*: **SS** (LS: Afgoi).

Elapsoidea loveridgei Parker, 1949 ?
General distribution: S. Somalia; S Ethiopia; Kenya; Zaire; Uganda; Tanzania; Rwanda. *Somali distribution*: **SS** (MJ: Gelib).

Genus *Naja* Laurenti, 1768.

Naja haje haje (Linnaeus, 1758).
General distribution of the species: savannas and semi-deserts of most of Africa; W and S Arabia; subsp. *haje*: from Morocco to Egypt; in E Africa from

([7]) Described as *Elapsoidea chelazzii* Lanza, 1979; this incorrect original spelling must be changed to *Elapsoidea chelazziorum* Lanza, 1979.

Sudan to Tanzania through Ethiopia, N Somalia and Kenya; W from Somalia and NE Zaire to Senegal. *Somali distribution*: **NS** (WG, T, Sa, B).

Naja melanoleuca Hallowell, 1857.
General distribution: (according to Broadley, 1983): forested or formerly forested areas of Africa from Senegal E to W Ethiopia, Kenya and S Somalia, S to Angola in the W and Zululand in the E. *Somali distribution*: **SS** (LJ).

Naja nigricollis nigricollis Reinhardt, 1843.
General distribution of the species: relatively moist savannas and deforested areas bording the equatorial forest, from Senegal to S Somalia, S to Angola, Zambia, Malawi and Tanzania (subsp. *nigricollis*); other two subspecies in S Africa. *Somali distribution*: **SS** (H, MS, LS, Bay, MJ, LJ).

Naja pallida Boulenger, 1896.
General distribution: from upper Egypt (Aswan) to N Tanzania (Longido) through Sudan, Ethiopia, Djibouti, Somalia and Kenya. *Somali distribution*: **AS** (NS, CS, MS, Ba, LS, Ge, MJ, LJ).

Genus *Pelamis* Daudin, 1803.

Pelamis platurus (Linnaeus, 1766).
General distribution: a true pelagic sea snake occurring in the tropical and warm-temperate waters of the Indo-Pacific region, along the S African coast as far W as Table Bay. *Somali distribution*: **CS** (Mu: Obbia), but almost surely present along all the Somali coasts.

Family **Colubridae** Oppel, 1811.
Genus *Aeluroglena* Boulenger, 1898.

Aeluroglena cucullata Boulenger, 1898.
General distribution: NW Somalia. *Somali distribution*: **NS** (WG, T).

Genus *Amblyodipsas* Peters, 1849.

Amblyodipsas polylepis hildebrandti (Peters, 1877).
General distribution of the species: Angola, Namibia, Botswana, Zaire, Zambia, Mozambique, Zimbabwe, Malawi, Transvaal, Natal [subsp. *polylepis* (Bocage, 1873)]; coastal Kenya and Tanzania, and SW Somalia (subsp. *hildebrandti*). *Somali distribution*: **SS** (MJ: zone of Mareri, SW of Gelib, 00°30′ N - 42°46′ E).

Genus *Aparallactus* A. Smith, 1849.

Aparallactus jacksonii (Günther, 1888).
General distribution: S.Ethiopia, S Somalia, Kenya and N Tanzania. *Somali distribution*: **SS** (MJ: zone of Mareri, SW of Gelib, ca. 00°30′ N - 42°46′ E).

Remarks: *A. jacksonii oweni* Loveridge, 1955 (S Sudan and presumably N Uganda) very probably is a full species.

Aparallactus lunulatus (Peters, 1854).
General distribution: Africa S of the Sahara, except southernmost and NW countries; NW and S Somalia. *Somali distribution*: **NS** (WG, T); **SS** (MS, M, LS, MJ, LJ). *Remarks*: it is uncertain whether the Somali subsp. *scorteccii* Parker, 1949 [= *Aparallactus concolor boulengeri* (non Werner) Scortecci, 1931] deserves taxonomic recognition.

Aparallactus sp. nova
General distribution: central Somalia. *Somali distribution*: **CS** (Mu: zone of Obbia).

Genus *Atractaspis* A. Smith, 1849.

Atractaspis bibroni A. Smith, 1849.
General distribution: S and E Africa, N to Angola and S Somalia. *Somali distribution*: **SS** (LS: Afgoi).

Atractaspis engdahli Lönnberg et Andersson, 1913.
General distribution: S Somalia and NE Kenya (Wajir Bor, ca. 48 km E of Wajir: Spawls, 1978). *Somali distribution*: **SS** (LS, MJ, LJ).

Atractaspis fallax Peters, 1866.
General distribution: Sudan (?); Ethiopia; Somalia; Kenya; Tanzania. *Somali distribution*: **AS** (T, B, Mu, H, MS, M, Bay, LS, Ge, MJ, LJ). *Remarks*: a full species, not a subspecies of *microlepidota* Günther, 1866, according to an unpublished revision by B. Hughes; see also Hughes, 1983.

Atractaspis leucomelas Boulenger, 1895.
General distribution: NW Somalia and adjacent parts of Ethiopia (N Ogaden). *Somali distribution*: **NS** (WG: 11° N - 43°05′ E).

Atractaspis scorteccii Parker, 1949.
General distribution: N Somalia and adjacent parts of Ethiopia (N Ogaden). *Somali distribution*: **NS** (WG, T, B).

Genus *Brachyophis* Mocquard, 1888.

Brachyophis revoili revoili Mocquard, 1888.
General distribution of the species: coastal central and S Somalia; subsp. *revoili*: coastal S Somalia. *Somali distribution*: **SS** (MS, M, LS, LJ).

Brachyophis revoili cornii Scortecci, 1932.

General distribution of the subspecies: coastal central Somalia, seemingly S of the range occupied by *B. revoili krameri*. *Somali distribution*: **CS** (Mu: Obbia and between Durghale, 05°35′ N - 48°15′ E, and Magghiole, 05°37′ N - 47°56′ E; G: Meregh, 03°46 N - 47°18′ E).

Brachyophis revoili krameri Lanza, 1966.
General distribution: N end of central Somalia. *Somali distribution*: **CS** (Mu: Geriban, 07°12′41″ N - 48°50′53″ E). *Remarks*: Lanza (1966) hypothesized that *B. revoili krameri* could be a full species; Wallach (*in litteris*, 5.XII.1986) found recently that *B. r. krameri* differs from *B. r. revoili* «in lacking the left lung, bronchus, and orifice, in having a longer right lung and hyoid (all considered derived), and in having the systemic arch junction farther posterior and a weaker tracheal lung (considered more primitive)»; due to the scarcity of specimens examined it is impossible at present to exclude the possibility of intraspecific variation.

Genus *Coluber* Linnaeus, 1758 ?

Coluber (?) *brevis brevis* (Boulenger, 1895).
General distribution of the species according to Schätti (in preparation): S Ethiopia, Somalia, Kenya; subsp. *brevis*: Somalia and adjacent parts of Ethiopia. *Somali distribution*: **AS** (WG; T; B; No; Mu, H; MS; Ge or Bay? MJ; LJ). *Remarks*: the subsp. *brevis* intergrades with the subsp. *smithi* in S Somalia (Schätti, in preparation).

Coluber (?) *brevis smithi* (Boulenger, 1859).
General distribution of the subspecies according to Schätti (in preparation): S Ethiopia and borderline with S Somalia, Kenya. *Somali distribution*: **SS** (Ge).

Coluber (?) *brevis* subsp. nova?
General and Somali distribution of the supposed new subspecies: **SS** [LJ: Coiama Island (Schätti, in preparation)].

Coluber (?) *messanai* Schätti et Lanza, 1989.
General distribution: NE Somalia. *Somali distribution*: **NS** (No: Wadi Run, 08°48′20″ N - 48°53′30″ E).

Coluber (?) *rhodorachis subniger* (Boettger, 1893).
General distribution of the species: from E Libya and N Chad eastwards across Egypt, Sinai, Arabic Peninsula, Irak, Iran, Afghanistan and Pakistan to the S U.S.S.R. (Turkestan) and northernmost India (Ladakh) [subsp. *rhodorachis* (Jan, 1865) and, from Iran to India, subsp. *ladacensis* (Anderson, 1871)]; subsp. *subniger*: from Eritrea and Djibouti to N and central Somalia, as well as to the adjacent areas of Ethiopia (Ogaden). *Somali distribution*: **NS; CS** (Mu).

Coluber (?) *scorteccii* Lanza, 1963.
General distribution: NE and central Somalia. *Somali distribution*: **NS** (No, S of the Nogal Valley); **CS** (G).

Coluber (?) *taylori* Parker, 1949.
General distribution: Ethiopia (Eritrea; Shoa) and N Somalia, according to Schätti, 1988. *Somali distribution*: **NS** (WG, B).

[*Coluber* (?) *somalicus* (Boulenger, 1896), so far known from the Audo Mountains (ca. 42° E - 06° N; Ogaden; Ethiopia), is to be searched for in Somalia].

Genus *Crotaphopeltis* Fitzinger, 1843.

Crotaphopeltis braestrupi Rasmussen, 1985.
General distribution: S. Somalia and N Kenya. *Somali distribution*: **SS** (Ba, H, MS, M, LS, MJ, LJ).

Crotaphopeltis hotamboeia (Laurenti, 1768).
General distribution: most of Africa S of the Sahara. *Somali distribution*: **SS** (MS, M, LS, Ge, MJ, LJ).

Genus *Dasypeltis* Wagler, 1830.

Dasypeltis medici lamuensis Gans, 1957.
General distribution of the species: southernmost Kenya, Tanzania (including Zanzibar and Mafia islands), N and central Mozambique, inland to Malawi and NE Zimbabwe [subsp. *medici* (Bianconi, 1859)]; coastal E Africa from S Somalia to Kenya-Tanzania frontier. *Somali distribution*: **SS** (MJ: Alessandra Island, near Gelib; zone of Mareri, SW of Gelib, ca. 00°30′ N - 42°46′ E; LJ: Belet Amin, 00°11′30″ N - 42°47′ E).

Dasypeltis scabra (Linnaeus, 1758).
General distribution: SW Marocco (Stemmler, 1971; Gruber & Hellmann, 1984), most of Africa S of the Sahara, Nile Valley and SW Arabia. *Somali distribution*: **NS** (WG, T, Sa); **SS** (MS), M, LS, Ge, Bay, MJ, LJ).

Genus *Dipsadoboa* Günther, 1858.

Dipsadoboa flavida broadleyi Rasmussen, 1989.
General distribution of the species according to Rasmussen, 1989: S Malawi (Mulanje district, between 610 and 730 m a.s.l.) [subsp. *flavida* (Broadley et Stevens, 1971)]; from S Somalia, through coastal Kenya (inland to Kibwezi) and Tanzania (inland to Chanzuru and Ifakara; Zanzibar) to S Mozambique

(subsp. *broadleyi*). *Somali distribution*: **SS** (MJ: zone of Mareri, SW of Gelib, ca. 00°30′ N - 42°46′ E).

Genus *Dispholidus* Duvernoy, 1832.

Dispholidus typus (A. Smith, 1829).
General distribution: most of Africa S of the Sahara. *Somali distribution*: **AS** (WG, G, H, MS, LS, Bay, MJ, LJ).

Genus *Hemirhagerrhis* Boettger, 1893.

Hemirhagerrhis kelleri Boettger, 1893.
General distribution: Ethiopia; Kenya; NW and S Somalia. *Somali distribution*: **NS** (T); **SS** (H, MS, M, LS, Bay, Ge, MJ, LJ).

Hemirhagerrhis nototaenia nototaenia (Günther, 1864).
General distribution of the species: Namibia and S Angola [subsp. *viperinus* (Bocage, 1873)]; E Zaire; Zambia; E Africa from S Sudan, Ethiopia, central and S Somalia to N Botswana and N and E Transvaal (subsp. *nototaenia*). *Somali distribution*: **CS** (G); **SS** (LS, Bay, Ge, MJ, LJ).

Genus *Lamprophis* Fitzinger, 1843.

Lamprophis fuliginosus fuliginosus (Boie, 1827).
General distribution: Morocco (cf. Gras, 1988), Mauritania, Africa S of the Sahara (subsp. *fuliginosus*) and SW Arabia [subsp. *arabicus* (Parker, 1930)]. *Somali distribution*: **NS** (WG, T); **SS** (H, MS, M, LS, Bay, Ge, MJ, LJ).

Lamprophis maculatus (Parker, 1932).
General distribution: Djibouti, Somalia and presumably adjacent parts of Ethiopia. *Somali distribution*: **AS** (T, B, No, G, Ba).

Genus *Lycophidion* Fitzinger, 1843.

Lycophidion capense loveridgei Laurent, 1968.
General distribution of the species: most of Africa S of the Sahara; subsp. *loveridgei* (according to Broadley, in preparation; *in litteris* 13.X.1989): «Coastal areas of southern Somalia south through coastal Kenya to the Uluguru Mountains in Tanzania». *Somali distribution*: **SS** (H; MS; M; LS; LJ ?).

Lycophidion capense (A. Smith, 1831) subsp.
General distribution: the border zone between NW Somalia and Ethiopia. *Somali distribution*: **NS** (WG, T). *Remarks*: «The status of this form is not yet settled, but its low counts of posterior maxillary teeth suggest that it may be a full species» (Broadley, in preparation; *in litteris* 13.X.1989).

Lycophidion depressirostre Laurent, 1968.
General distribution: S Sudan; Ethiopia (Largen: personal comm., 22.V.1990); N and S Somalia; Kenya; Uganda; Tanzania. *Somali distribution*: **NS** (T: 08°29′ N - 45°34′ E; 08°20′ N - 46° E); **SS** (H; MS; M; LS; Ba; Bay; MJ; LJ ?).

Genus *Mehelya* Csiki, 1903.

Mehelya capensis savorgnani (Mocquard, 1887).
General distribution of the species: most of Africa S of the Sahara; subsp. *savorgnani*: Ethiopia (Largen: personal comm., 22.V.1990), Kenya, S Sudan, Uganda, Zaire, Congo, Cameroon, Gabon, Central African Republic, N and S Somalia. *Somali distribution*: **NS** (WG: 09° N - 44′ E); **SS** (H, MS, M, LS, MJ, LJ).

Mehelya nyassae (Günther, 1888).
General distribution: from S Somalia, Kenya and Burundi, southwards to N and E Transvaal, and Natal, extending westwards to central Namibia through Botswana. *Somali distribution*: **SS** (MJ: zone of Mareri, SW of Gelib, ca. 00°30′ N - 42°46′ E).

Genus *Meizodon* Fischer, 1856.

Meizodon plumbiceps (Boettger, 1893).
General distribution: SE Ethiopia (Ogaden), NE tip of Kenya, and S Somalia. *Somali distribution*: **SS** (MS, LS, Bay, MJ, LJ).

Meizodon semiornatus semiornatus (Peters, 1854).
General distribution of the species: S Chad and central and S Sudan [subsp. *tchadensis* (Chabanaud, 1917)]; from S Sudan, S Ethiopia and S Somalia southwards to Swaziland and Zululand, through Kenya, Tanzania, Zambia, Zimbabwe, NE Botswana and Mozambique (subsp. *semiornatus*). *Somali distribution*: **SS** (MS, M, LS, Ge, MJ, LJ).

[*Meizodon krameri* Schätti, 1985, so far known from the delta of the Tana River (Kenya), is to be searched for in the extreme S Somalia].

Genus *Micrelaps* Boettger, 1880.

Micrelaps boettgeri Boulenger, 1896.
General distribution: S Sudan; Ethiopia; N and S Somalia; Uganda. *Somali distribution*: **NS** (WG, T); **SS** MS, M; Ge, MJ, LJ).

Micrelaps vaillanti (Mocquard, 1888).

General distribution: S Somalia (a specimen from an undetermined locality); NE Kenya? *Somali distribution*: **SS**. *Remarks*: according to a personal communication (M. Largen, 22.V.1990), the Kenyan records by Spawls (1978) are erroneous (Wajir: California Acad. of Sciences n. 130641, re-identified as *M. boettgeri* by G. Underwood) or doubtful (Mandera: specimen so far «not found in either California or London», maybe preserved in the Nairobi Museum).

Genus *Natriciteres* Loveridge, 1953.

Natriciteres olivacea (Peters, 1854).
General distribution according to Broadley, 1983: savannas of the W, central and E Africa from the Sudan S to Mozambique and W through Zimbabwe and Botswana to Angola. *Somali distribution*: **SS** (M).

Genus *Philothamnus* A. Smith, 1847.

Philothamnus battersbyi Loveridge, 1951.
General distribution: Ethiopia, S Somalia, Kenya, Uganda, Rwanda, Burundi, NE Tanzania, according to Hughes (1985) and Lanza (1983). *Somali distribution*: **SS** (H, LS, MJ, LJ).

Philothamnus punctatus Peters, 1866.
General distribution: N and S Somalia, Kenya, E Tanzania, coastal N Mozambique, according to Hughes (1985) and Lanza (1983). *Somali distribution*: **NS** (WG, T); **SS** (H, MS, M, LS, Bay, Ge, MJ, LJ).

[*Philothamnus hoplogaster* (Günther, 1863) and *P. semivariegatus* (Smith, 1847) are to be searched for in the extreme S Somalia (cf. Hughes, 1985, figs 9 and 15 respectively)].

Genus *Prosymna* Gray, 1849.

Prosymna ambigua stuhlmanni (Pfeffer, 1893).
General distribution of the species: most of Africa S of the Sahara; subsp. *stuhlmanni*: from S Somalia S to Zululand, extending W to E Zambia, Zimbabwe and Transvaal. *Somali distribution*: **SS** (LJ: Belet Amin, 00°11'30'' N - 42°47' E).

Prosymna ruspolii ruspolii (Boulenger, 1896).
General distribution of the species: Kenya (subsp. *keniensis* Broadley, 1980); S Ethiopia and S Somalia (subsp. *ruspolii*). *Somali distribution*: **SS** (H, MS, M, LS, Bay, Ge, MJ, LJ).

Prosymna somalica Parker, 1930.

General distribution: N Somalia and adjacent parts of Ethiopia. *Somali distribution*: **NS** (WG, T, B).

Genus *Psammophis* Boie, 1826.

Psammophis biseriatus Peters, 1881.
General distribution of the species: from S Libya to Tanzania through Sudan, Ethiopia, Somalia, Uganda (? see Pitman, 1974: 161) and Kenya. *Somali distribution*: **AS** (NS; CS; SS, including Coiama Island). *Remarks*: the species badly needs a revision. So far two subspecies have been described (distribution according to Loveridge, 1940); subsp. *biseriatus,* normally with 2 labials entering the eye, 139 (146.50) 154 (♂♂)and 143 (148.92) 152 (♀♀) ventrals: «Italian Somaliland south of the Nogal River, through the drier regions of Kenya to extreme northeastern Tanganyika Territory near Kilimanjaro Mountain»; subsp. *tanganicus* Loveridge, 1940, normally with 3 labials entering the eye, 143 (153.63) 166 (♂♂) and 146 (157.21) 165 (♀♀) ventrals: «Southern Libya (*fide* Scortecci and Zavattari), southeast through the Sudan to Eritrea, Ethiopia and Italian Somaliland north of the Nogal River, and south through the Sudan to Uganda and central Tanganyika. It meets with the typical form at Lake Manka in northeastern Tanganyika Territory and along the border between Ethiopia and Italian Somaliland»; subsp. ? from Coiama Island (SE Somalia): all 4 ♀♀ so far known have 3 labials entering the eye, 152 (154.00) 157 ventrals and an extremely reduced ventral pattern. According to Bezy & Drewes (1985), who studied 30 Kenyan and 17 Tanzanian specimens of the *biseriatus - tanganicus* complex, this latter deserves specific status; at present I am not able to take into consideration their conclusions as the Somali situation appears to be a particularly confused one.

Psammophis punctulatus Duméril et Bibron, 1854.
General distribution: Sudan; N Ethiopia; Djibouti (Schätti, 1989); Kenya (Lake Rudolf region); N Somalia. *Somali distribution*: **NS** (WG: NW edge of the Guban, between 10°30′ N - 42°40′ E and 10°55′ N - 42°55′ E, about 500-1200 m a.s.l.; B: Galgala Oasis, 11°00′ N - 49°03′ E, about 800 m a.s.l.).

Psammophis schokari (Forsskål, 1775).
General distribution: from Africa N of 10° of latitude N and N Somalia to NW India. *Somali distribution*: **NS** (WG, T, Sa, B).

Psammophis sibilans sibilans (Linnaeus, 1758).
General distribution of the species. Subsp. *sibilans:* savannas of most of Africa, except those occupied by the other two subspecies; subsp. *leopardinus* Bocage, 1887 (according to Broadley, 1983): «Angola and northern Namibia, with an apparently isolated population in Zambia»; subsp. *brevirostris* Peters, 1881 (according to Broadley, 1983): «Highveld and middleveld areas of the Transvaal, extending into southeastern Botswana and the northern Cape

Province, Swaziland, south-west Moçambique (Lebombo Range), ZwaZulu, Natal and Transkei. There are relict populations in Zimbabwe». *Somali distribution*: **NS** (WG, T, Sa); **SS** (H, MS, LS, MJ, LJ). *Remarks*: a *Psammophis* cf. *sibilans* is quoted for SW Arabia by Joger (1987, p. 267, Table 3).

Psammophis trivirgatus Peters, 1878.
General distribution: S Ethiopia; Kenya; Uganda; N Tanzania; Somalia. *Somali distribution*: **NS** [in the N so far known only from WG (Hargeisa, BMNH n. 1954.1.12.86 and 1959.1.6.91: M. Largen, personal communication, 23.V.1990; Golis Mts and near Berbera) and T (Haud, between 08°00′ N - 45°50′ E and 08°29′ N - 45°34′ E, about 800 m a.s.l.)]; **CS; SS** (H, MS, LS, Ba, Bay, Ge, MJ, LJ).

Genus *Rhamphiophis* Peters, 1854.

Rhamphiophis rostratus Peters, 1854.
General distribution: E Africa from S Sudan and Ethiopia to Mozambique and E Transvaal through Somalia, Kenya, Uganda, Tanzania (including Zanzibar), Malawi, SE Zaire and Zimbabwe. *Somali distribution*: **AS** (WG, T, B, No, Mu, M, LS, Ba, Bay, Ge, MJ, LJ).

Rhamphiophis rubropunctatus (Fischer, 1884).
General distribution: S Sudan, Ethiopia, E Kenya; N Tanzania; N and S Somalia. *Somali distribution*: **NS** (T); **SS** (MS, M, Bay, MJ, LJ).

Genus *Spalerosophis* Jan, 1865.

Spalerosophis josephscorteccii Lanza, 1966.
General distribution: NE Somalia. *Somali distribution*: **NS** (B: Galgala Oasis, 11°00′ N - 49°03′ E).

Genus *Telescopus* Wagler, 1830.

Telescopus dhara (Forsskål, 1775).
General distribution: most of N Africa from Morocco (Böhme, Schmitz & Messer, 1989) and Mauritania to Egypt; E Africa from Egypt to Kenya through Ethiopia and Sudan; Israel; Arabia. *Somali distribution*: **AS** (WG, T, No, B, CS, SS). *Remarks*: at present I prefer to treat the species as monotypic.

Telescopus pulcher (Scortecci, 1935).
General distribution: N. Somalia. *Somali distribution*: **NS** (T: 08°45′ N - 44°44′ E, m 1150 a.s.l.; undetermined locality of Mijarten).

Genus *Thelotornis* A. Smith, 1849.

Thelotornis capensis mossambicanus (Bocage, 1895).
General distribution of the species according to Broadley (1983): «Natal, Swaziland and the Transvaal, north to the south-western Bostwana, southern

Zimbabwe and southern Moçambique, where it intergrades with both *T. c. oatesii* and *T.c. mossambicanus*» (subsp. *capensis* A. Smith, 1849); «southern Angola, southern Zaire (Shaba Province), northern Namibia, northern Botswana, Zambia, lowlands of Malawi, the Tete province of Moçambique, northern Zimbabwe» [subsp. *oatesii* (Günther, 1881)]; «southern Somalia, south-eastern Kenya, Tanzania, Malawi and Moçambique, intergrading with *T. c. oatesii* and *T. c. capensis* in eastern Zimbabwe and southern Moçambique» (subsp. *mossambicanus*). *Somali distribution*: **SS** (M ?; MJ; LJ).

Family **Viperidae** Laurenti, 1768.
Genus *Bitis* Gray, 1842.

Bitis arietans somalica Parker, 1949.
General distribution of the species: savannas of most of Africa (except the countries inhabited by the subsp. *somalica*) and Arabia (W and S periphery, as far N as Taif and as far E as Dhofar) [subsp. *arietans* (Merrem, 1820)]; SE Ethiopia, Somalia and N Kenya (subsp. *somalica*). *Somali distribution*: **AS** (including Coiama Island).

Genus *Causus* Wagler, 1830.

Causus resimus (Peters, 1862).
General distribution: Sudan, E Zaire, Ethiopia, S Somalia, Uganda, Rwanda, Burundi, Malawi, Zambia, Kenya, Tanzania, N Mozambique and Angola. *Somali distribution*: **SS** (H, MS, M, Bay, LS, Ge, MJ, LJ).

Genus *Echis* Merrem, 1820.

Echis pyramidum (E. Geoffroy St. Hilaire et I. Geoffroy, 1827) n. subsp.?
General distribution: NE Libya; Egypt; Sudan; Ethiopia; Djibouti; N, central and, probably, SW Somalia; N Kenya; W and S coastal Arabia. *Somali distribution*: **NS** (WG, Sa, B, No); **CS** (Mu); **SS** (?).

COMPOSITION OF THE SOMALI HERPETOFAUNA

At present 29 amphibian species are known to inhabit Somalia (Table I), a number doubtless destined to increase with further research, particularly in the southern regions where a larger variety of habitats exists, some of which — such as swamps and woods — do not allow for easy collecting.

However the Somali batrachofauna is quite poor, due to the prevailing aridity of the country, as clearly shown by a comparison between the number of northern and southern species, 12 and 25 respectively.

The environmental conditions of Somalia are, instead, quite good for reptiles, of which at least 203 species are known to inhabit Somalia (Table II

TABLE I - Composition of the Somali batrachofauna

Families	Number of species	Number and percentage of endemic species
Bufonidae	6	0
Microhylidae	2	1 (50.000)
Ranidae	11	2 (18.18)
Rhacophoridae	1	0
Hyperoliidae	8	1 (12.50)
Hemisidae	1	0
Total	29	4 (13.79)

and IV). The families represented by the largest number of species are Colubridae (52), Gekkonidae (44), Scincidae (25); Lacertidae (19) and Agamidae (13). It is noteworthy that among gekkonid lizards 29 species (= 65.91%) belong to the genus *Hemidactylus* and that 17 of them (= 58.62%) are endemic([8]).

TABLE II - Composition of the Somali reptilian fauna (marine species excluded(*).

Families	Number of species	Number and percentage of endemic species
Testudinidae	2	0
Trionychidae	1	0
Pelomedusidae	2	0
Crocodilidae	1	0
Gekkonidae	44	24 (54.54)
Agamidae	13	5 (38.46)
Chamaeleonidae	6	1 (16.67)
Scincidae	25	13 (52.00)
Cordylidae	2	0
Lacertidae	19	11 (57.89)
Varanidae	2	0
Trogonophidae	2	2 (100)
Amphisbaenidae	1	1 (100)
Typhlopidae	7	3 (42.86)
Leptotyphlopidae	5	1 (20.00)
Boidae	3	1 (33.33)
Elapidae	7	1 (14.28)
Colubridae	52	15 (28.85)
Viperidae	3	0
Total	197	78 (39.59)

(*) Four species of Cheloniidae, a species of Dermochelyidae and a species of Elapidae.

([8]) The term «Somalia» is used here in a physiographic sense; it also refers to some adjacent territories, with a Somali-like ecological physiognomy, as Djibouti, the Ogaden (Ethiopia) and, concerning Kenya, the North Eastern Province and the eastern portion, up to the Tana River, of the Coast Province.

TABLE III - Composition of the Somali batrachofauna according to the type of distribution.

Type of distribution	Number of species	Percentage
Eastern African (*sensu* Wallace, 1876: Fig. 1)	12	41.38
Prevalently eastern African	11	37.93
Ethiopian (*sensu* Wallace) (= Afrotropical)	6	20.69

The 29 Somali amphibian species, all Ethiopian, may be **roughly** subdivided into three categories on the basis of their present range; the endemics are printed in bold-faces italic (see also Table III).

Eastern African (*sensu* Wallace, 1876; Fig. 2): *Bufo blanfordi, B. dodsoni, B. lughensis, B. steindachneri,* ***Phrynomerus somalicus****, Hildebrandtia macrotympanum,* ***Lanzarana largeni, Pyxicephalus obbianus****, Chiromantis petersi,* ***Kassina parkeri****, K. somalica, Leptopelis concolor;*

prevalently eastern African: *Bufo garmani, B. xeros, Hylarana galamensis, Phrynobatrachus acridoides, P. minutus, Ptychadena anchietae, P. mossambica, Tomopterna cryptotis, Hyperolius argus, H. nasutus, H. pusillus;*

Ethiopian (*sensu* Wallace) (= Afrotropical): *Phrynomerus bifasciatus, Ptychadena schillukorum, Pyxicephalus adspersus, Hyperolius viridiflavus, Kassina senegalensis, Hemisus marmoratus.*

No species of Somali amphibians has ever been found in Arabia; however, according to Balletto *et alii* (1985), one of them, *Bufo dodsoni*, is morphologically close to three toads endemic to the Arabia Peninsula: *Bufo dhufarensis* Parker, 1931, *B. arabicus* Heyden, 1827, and *B. scorteccii* Balletto et Cherchi, 1970. Of the 4 amphibian genera inhabiting Arabia only *Bufo* is present also in Somalia.

The endemicity percentage, 13.79, is rather low (Table I); in Arabia, on the contrary, where 6 out of 9 species are endemic, it reaches 66.67 (Balletto *et alii*, 1985).

TABLE IV - Composition of the Somali reptilian fauna according to the type of distribution.

Type of distribution	Number of species	Percentage (marine species included)	Percentage (marine species excluded)
Eastern African (*sensu* Wallace, 1876: Fig. 1)	123	60.59	62.44
Prevalently eastern African	31	15.27	15.74
Ethiopian (*sensu* Wallace) (= Afrotropical)	29	14.28	14.72
African and southwestern Asiatic	10	4.93	5.08
Prevalently southern Mediterranean	1	0.49	0,51
Introduced from the Oriental region	3	1.48	1.52
Marine	6	2.95	
Total	203		

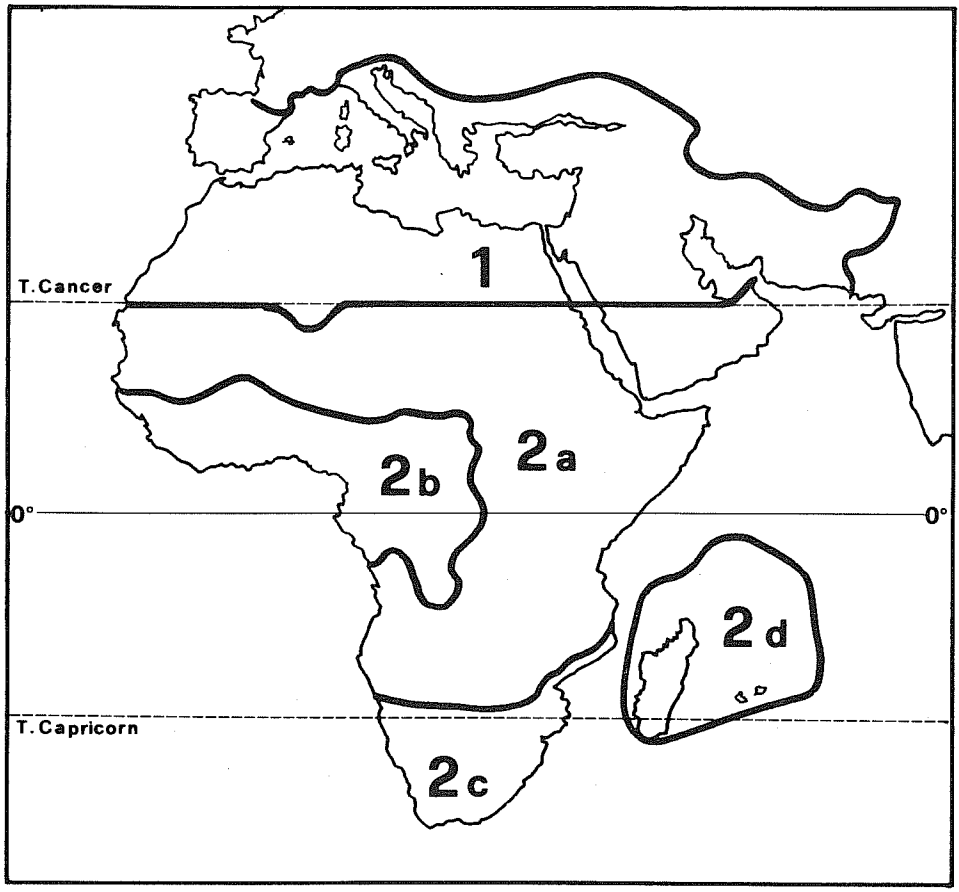

FIG. 2 - Zoogeographical subdivision of Africa according to A.R. Wallace (1876). 1: Mediterranean subregion of the Palaearctic region. 2: East African (2a), West African (2b), South African (2c) and Malagasy (2d) subregions of the Ethiopian region.

Only one of the 14 Somali amphibian genera is endemic: *Lanzarana*, a ranid frog close to *Hildebrandtia* and *Ptychadena* described by Clarke in 1982. It includes the single species *Lanzarana largeni* (Lanza, 1978), which is particularly interesting as it presents a phenomenon unique among amphibians: «in particular circumstances, as yet unidentified but probably linked to periods of activity, the tips of II-IV fingers begin to dilate and within a few days become discoidal like those of tree frogs» (Lanza, 1987).

The 203 Somali reptile species may be **roughly** subdivided into seven categories on the basis of their present range; the endemics are printed in bold-faced italic (see also Table IV).

Eastern African (*sensu* Wallace, 1876; Fig. 2): *Pelusios sinuatus,* ***Hemidactylus albopunctatus, H. arnoldi,*** *H. barodanus,* ***H. bavazzanoi, H. citernii, H. curlei, H. fragilis,*** *H. funaiolii,* ***H. granchii,*** *H. isolepis,* ***H. klauberi, H.***

laevis, *H. macropholis*, ***H. megalops***, ***H. ophiolepoides***, *H. platycephalus*, ***H. puccionii***, ***H. ruspolii***, *H. sinaitus*, ***H. smithi***, ***H. somalicus***, *H. squamulatus*, ***H. taylori***, ***H. tropidolepis***, *H. yerburii*, ***Hemitheconyx taylori***, *Holodactylus africanus*, ***H. cornii***, *Homopholis fasciata*, *Lygodactylus gutturalis*, ***L. scorteccii***, ***L. somalicus***, *Pristurus crucifer*, *P. flavipunctatus*, ***P. phillipsi***, ***P. simonettai***, ***Tropiocolotes somalicus***, ***Agama bottegi***, *A. persimilis*, ***A. robecchii***, *A. rueppelli*, ***Agama*** sp. (unidentified *agama*-like species), *Stellio annectens*, *Stellio phillipsi*, ***Uromastyx princeps***, ***Xenagama batillifera***, ***X. taylori***, *Chamaeleo calcaricarens*, ***C. ruspolii***, *Rhampholeon kersteni*, ***Haackgreerius miopus***, ***Lygosoma grandisonianum***, ***L. laeviceps***, ***L. paedocarinatum***, ***L. mabuiiforme***, ***L. productum***, ***L. simonettai***, ***L. somalicum***, ***L. tanae***, ***L. vinciguerrae***, *Mabuya brevicollis*, ***M. ferrarai***, ***M. hemmingi***, ***M. hildebrandti***, *M. planifrons*, ***Eremias*** (?) ***ercolinii***, *Heliobolus spekii*, *Latastia boscai*, ***L. caeruleopunctata***, ***L. carinata***, ***L. cherchii***, ***L. doriai***, ***L. taylori***, ***Philochortus hardeggeri***, *P. phillipsi*, *P. spinalis*, ***Pseuderemias brenneri***, ***P. erythrosticta***, ***P. smithi***, ***P. striata***, ***Agamodon anguliceps***, ***A. compressus***, ***Ancylocranium somalicum***, ***Rhinotyphlops leucocephalus***, ***R. scorteccii***, *R. unitaeniatus*, ***Typhlops cuneirostris***, *Leptotyphlops nigricans*, ***L. reticulatus***, ***Gongylophis somalicus***, ***Atractaspis engdhali***, *A. fallax*, ***A. leucomelas***, ***A. scorteccii***, *Micrelaps boettgeri*, ***M. vaillanti***, ***Elapsoidea chelazziorum***, ***Aeluroglena cucullata***, *Aparallactus jacksoni*, ***Aparallactus*** sp. n., ***Brachyophis revoili***, *Coluber brevis*, ***C. messanai***, ***C. scorteccii***, *C. taylori*, ***Crotaphopeltis braestrupi***, *Dasypeltis medici*, *Hemirhagerrhis kelleri*, ***Lamprophis maculatus***, *Lycophidion depressirostre*, ***Meizodon plumbiceps***, *Philothamnus battersbyi*, *P. punctatus*, *Prosymna ruspolii*, ***P. somalica***, *Psammophis biseriatus*, *P. punctulatus*, *P. trivirgatus*, *Rhamphiophis rubropunctatus*, ***Spalerosophis josephscorteccii***, ***Telescopus pulcher***, *Causus resimus;*

prevalently eastern African: *Geochelone pardalis*, *Hemidactylus mercatorius*(9), *Ptyodactylus hasselquisti*, *Agama spinosa*, *Stellio atricollis*, *Chalcides ragazzii*, *Cryptoblepharus africanus*, *Lygosoma afrum*, *L. sundevalli*, *Mabuya varia*, *Panaspis wahlbergi*, *Gerrhosaurus flavigularis*, *Latastia longicaudata*, *Mesalina martini*, *Philochortus intermedius*, *Pseuderemias mucronata*, *Varanus albigularis*, *Leptotyphlops cairi*, *L. longicaudus*, *Eryx colubrinus*, *Amblyodipsas polylepis*, *Atractaspis bibroni*, *Dendroaspis polylepis*, *Elapsoidea loveridgei*, *Naja pallida*, *Coluber florulentus*, *Dipsadoboa flavida*, *Hemirhagerrhis nototaenia*, *Mehelya nyassae*, *Meizodon semiornatus*, *Rhamphiophis rostratus;*

Ethiopian (*sensu* Wallace) (= Afrotropical): *Kinixys belliana*, *Pelomedusa subrufa*, *Crocodylus niloticus*, *Chamaeleo dilepis*, *C. gracilis*, *C. quilensis*, *Mabuya maculilabris*, *M. quinquetaeniata*, *M. striata*, *Gerrhosaurus major*, *Varanus niloticus*, *Rhinotyphlops schlegeli*, *Typhlops lineolatus*, *Python sebae*, *Naja*

(9) Species badly needing a revision, probably a prevalently Malagasy species.

haje, N. melanoleuca, N. nigricollis, Aparallactus lunulatus, Crotaphopeltis hotamboeia, Dasypeltis scabra, Dispholidus typus, Lamprophis fuliginosus, Lycophidion capense, Mehelya capensis, Natriciteres olivacea, Prosymna ambigua, Psammophis sibilans, Thelotornis capensis, Bitis arietans;

African and southwestern Asian: *Trionyx triunguis, Hemidactylus robustus, Pristurus, rupestris, Tarentola annularis, Uromastyx ocellata, Leptotyphlops macrorhynchus, Coluber rhodorachis, Psammophis schokari, Telescopus dhara, Echis pyramidum;*

prevalently southern Mediterranean: *Chalcides ocellatus* (probably introduced);

marine; *Caretta caretta, Chelonia mydas, Eretmochelys imbricata, Lepidochelys olivacea, Dermochelys coriacea, Pelamis platurus;*

introduced: *Hemidactylus flaviviridis; H. frenatus; Ramphotyphlops braminus; Chalcides ocellatus ? (see above).*

It is worth noting that the eastern African species together with the prevalently eastern African ones represent 77.66% of all non-marine Somali reptiles, whereas the strictly Ethiopian non-marine species reach 92.89% of the entire Somali reptilian fauna. At least 24 species of the 197 non-marine ones (12.18% are known to inhabit both Somalia and the Arabian Peninsula, excluding Sinai. Geneva *Xenagama*, *Haackgreerius*, *Aeluroglena* and *Brachyophis* are endemic.

The endemic non-marine reptiles are about 40% (39.59).

BIOGEOGRAPHICAL NOTES

The paleogeographic events of the Horn of Africa (the oldest component of which originally belonged to the Nubian-Arabian shield of the African continental plate) were very complex and their reconstruction still presents several obscure and debatable points. Nevertheless, geological and geophysical research has cliarified some of the stages most significant from a biogeographic point of view [see f.i. Girdler (1969, 1984), Abbate *et alii* (1988), Piccoli *et alii* (1988)].

1) Southern Somalia emerged definitively by the Lower Paleocene, about 60 mybp.

2) During the Lower Eocene, about 50 mybp, no prominent changes took place in southern Somalia, whereas a shallow-waters and evaporitic marine sedimentation occurred in the central and northern sectors.

3) The definitive emersion of all Somalia goes back to the Lower Oligocene, i.e. to about 35 mybp.

4) The Gulf of Aden started in the Lower Oligocene, about 35 mybp, as a shallow and narrow arm of sea, which progressively widened to its present state.

5) The opening of the Red Sea began between the Oligocene and Miocene ca. 25 mybp, but a land connection remained probably between Arabia and Somalia at the level of the present Straits of Bāb-al-Mandab.

6) The upheaval of the great Abyssinian and northern Somali plateaux took place about 20-15 mybp (Burdigalian - Middle Miocene).

7) According to Azzaroli (1968), the Straits of Bāb-al-Mandab goego back to the Middle of Lower Miocene, while, according to Girdler (1984), probably to the beginning of the Pliocene, ca. 5 mybp. However the opening probably occurred even more recently, towards the end of the Pliocene, ca. 2 mybp; this datation is the result of integrating Styles & Hall's data on magnetic anomalies (1979) with Boucarut & Clin's studies on tectonic evolution (1979; both papers are not quoted by Girdler).

8) The primitive communication between the Mediterranean and Red Sea (proved e.g. by the presence in the Red Sea area of marine Miocene with Mediterranean fauna as far S as the 15th parallel) failed when a landbridge between Africa and Asia formed in the Clysmic Gulf area (Gulf of Suez) between the late Miocene and the early Pliocene (Said, 1962; Heybroek, 1965).

9) Land connections between Arabia and Somalia in the area of the Straits of Bāb-al-Mandab, relatively limited in time and space, very likely occurred during the Pleistocene eustatic changes of the sea level or at least during the final phase of the Würmian glaciation, about 18,000 years ago.

Somalia therefore presents biogeographical conditions of semi-insularity([10]). They were caused, mainly during the Neogene, by the separation of Africa from Asia, due to the opening of the Gulf of Aden and of the Red Sea, and by the upheaval of the Abyssinian plateaux which, together with the other highlands of the East African Rift System, separated Somalia and the remaining East Africa from the rest of the continent.

The paleoclimatic events were as much or even more complex. Together with the paleogeographic ones, they played a basic role in determining the present composition of the Somali flora and fauna through the interaction of several factors, such as extinctions, expansion and restriction of ranges, or their breaking up, the latter resulting in an increased allopatric speciation. Unfortunately our knowledge of the Somali paleoclimatology is rather poor, also that regarding the Quaternary. However, for our purposes it is enough to know that relatively hot and cold, dry and humid periods have surely alternated in Somalia over the past few million years, some even within the last few thousand or hundred years. For the Pleistocene and Holocene one may refer to Parker's synthesis (1949) based on Zeuner's (1945) and Clark's (unpublished) data, to a monography of the latter dealing with the prehistoric cultures of the Horn of Africa (1954), as well as to two works, one of

([10]) These conditions and their biogeographical implications regarding reptiles had already been pointed out by Balletto (1968) in a paper published in Italian and consequently known less than it would deserve.

which in the present volume, concerning the climatic changes which occurred respectively during the last 20,000 years (Mussi, 1990) and in historic times (Abukar Osman Abikar, in preparation).

Considering the above, it can be mantained that the paleogeographic and paleoclimatic events which occurred in the Somali area surely favoured a strong floristic and faunistic diversification, as shown by the remarkable degree of endemicity exhibited by a large number of different plant and animal groups, e.g. by the Somali reptiles, about 40% of which is endemic.

In this connection, the evidence given by the batrachians is discordant, but this discrepancy could be merely superficial. In fact, the scarcity of Somali endemic Amphibia (13.79%) could be ascribed to the recurrent aridity crises which occurred in the past, which almost certainly had devastating consequences on this group usually so closely linked to water. Moreover, the quantitative composition of the batrachofauna (cf. p. 442) is heavily conditioned, much more than that of the reptilian fauna, by a relatively high number of species with a wide African distribution and inhabiting only the rather humid southernmost regions of the country. Consequently, this brings about a lowering of the endemicity percentage, more important for the amphibians than for the reptiles. The same, *mutatis mutandis*, did not obviously occur in Arabia (cf. p. 444) and this probably explains the high endemicity percentage (66.67%) of the local batrachofauna.

Balletto (1968: 255-258) was the first to show that some species of the Somali herpetofauna occurring both in northern and southern Somalia are lacking in the central regions. The data utilized by Balletto are mostly out-of-date, due to taxonomic changes or new records, and sometimes erroneous([11]), but his point of view retains its validity also in the light of the most recent research. According to my data, the northern and southern species lacking or not yet collected in central Somalia (Mudug and Galgadud) are

([11]) Balletto (1968: 255) writes: «Scortecci (1933), nel corso di uno studio sugli anfibi della Somalia, aveva fatto un'osservazione molto interessante: su tre specie di anuri in comune tra Somalia meridionale e territori posti a nord del corso dell'Uebi Scebeli, due, *Temopterna* [*sic!*] *delalandei* e *Chiromantis petersi kelleri* non sono mai stati rinvenuti nella Somalia media; in tal modo la regione situata a sud del corso dell'Uebi Scebeli verrebbe a presentare maggiori affinità con la Somalia settentrionale che con la centrale». [«Scortecci (1933), while studying Somali amphibians, made a very interesting observation: of the three species common to southern Somalia and the territories north of Webi Shebeli, two, *Temopterna* [*sic!*] *delalandei* and *Chiromantis petersi kelleri* had never been collected in central Somalia; hence, the region south of Webi Shebeli should present stronger affinities with northern Somalia than with the central part of the country»]. *This quotation is completely wrong.* In fact, Scortecci mentions *Chiromantis petersi kelleri* as inhabiting also central Somalia (territory of Obbia), and, concerning *Rana (Pyxicephalus) delalandi*, he writes that «tutto lascia supporre che sia presente ... in quella che si dice Somalia media» [«all evidence leads to suppose that it inhabits also the so-called central Somalia»] and actually considers it as present in that region in the course of his discussion. Furthermore, Scortecci, on the basis of the amphibian distribution, simply concludes that «la Somalia media è un distretto di transizione fra Somalia settentrionale e meridionale, distretto che ha più spiccate affinità con la Somalia settentrionale, (5 specie a comune) che non con la meridionale con la quale ha in comune *Bufo regularis, Rana (Pyxicephalus) delalandi, Chiromantis petersi kelleri*». [«central Somalia is a transitional area between northern and southern Somalia, more closely related to northern Somalia (5 species in common) than to southern Somalia, with which it shares *Bufo regularis, Rana (Pyxicephalus) delalandi, Chiromantis petersi kelleri*»].

the following 33: (Amphibia) *Hildebrandtia macrotympanum, Ptychadena anchietae, Kassina parkeri, Kassina somalica* (Reptilia) *Geochelone pardalis, Kinixys belliana, Pelomedusa subrufa, Hemidactylus isolepis, Stellio annectens, Chamaeleo gracilis* (its occurrence in the N regions is uncertain), *Chalcides ocellatus, Mabuya striata, Panaspis wahlbergi, Gerrhosaurus major, Pseuderemias smithi, Varanus albigularis, Ancylocranium somalicum, Rhinotyphlops schlegeli, Typhlops cuneirostris, Leptotyphlops cairi, Gongylophis somalicus, Micrelaps boettgeri, Dendroaspis polylepis, Aparallactus lunulatus, Dasypeltis scabra, Hemirhagerrhis kelleri, Lamprophis fuliginosus, Lycophidion capense, Lycophidion depressirostre, Mehelya capensis, Philothamnus punctatus, Psammophis sibilans, Rhamphiophis rubropunctatus.* Balletto (1968: 237) believes that he is unable to give a conclusive opinion on the causes of this phenomenon and presents two hypotheses which even he considers unconvincing, based respectively on paleogeographic and paleoclimatic data.

However, before attempting any explanation, we should verify if this phenomenon actually exists or if the absence of some species in central Somalia is simply due to insufficient research. Undoubtedly some of the 33 above-mentioned species will be sooner or later collected also in central Somalia, but it is equally probable that some of them will turn out to be lacking there. On the other hand, this phenomenon has been demonstrated to occur in other well-investigated groups, has f.i. in the land isopods (Ferrara *et alii*, in prep.). According to a very convincing hypothesis of these authors the origin of the phenomenon could be ascribed to the present climatic conditions; in fact, S Somalia and a large part of N Somalia have a «humid tropical climate» (8-9 dry and 3-4 humid months), whereas central Somalia has a «predesertic tropical climate» (10-11 dry and 1-2 humid months) (Troll, 1960).

Today's faunal similarities between Somalia and/or Africa and Arabia have been discussed by Balletto (1968), Arnold (1987) and, to a greater extent, by Joger (1987), to whom one can refer for further details.

The amphibian genus *Bufo* and 10 reptilian genera are represented in Arabia and Somalia by different species: the amphisbaenian *Agamodon*, the lizards *Stellio, Chamaeleo, Philochortus, Tropiocolotes, Varanus*, and the snakes *Atractaspis, Eryx* and *Spalerosophis. Bufo* is a widespread genus with tropical origin; *Atractaspis, Chamaeleo* and *Philochortus* are mainly African genera; *Agamodon* is a Somali-S Arabian endemic genus of a mainly Saharo-Sindian family; *Stellio* is a mainly central Asian and Irano-Turanian genus widespread in E and part of S Africa; *Tropiocolotes, Eryx* and *Spalerosophis* are Saharo-Sindian genera, *Varanus* is an African, S Asian and Australian genus. According to Arnold (1987: 254), with whom I perfectly agree, «a strict vicariance analysis... cannot elucidate the complex situation found around and within Arabia where barriers have fluctuated, sometimes stopping movement and sometimes allowing it to take place»; however, at least some species of the above-mentioned genera appear to be real vicariants for which one can maintain a vicariance event going back as far as Miocene, e.g. for those of *Bufo (B. dodsoni* vs *B. arabicus, B. dhufarensis* and *B. scorteccii),*

TABLE V - Somali non-marine reptiles also found in the Arabian Peninsula (excluding Sinai).

Family	*Species*	*Arabian range*
Pelomedusidae	*Pelomedusa subrufa*	SW periphery of Arabia
Gekkonidae	*Hemidactylus flaviviridis*	introduced: mainly peripheral areas of Arabia
	Hemidactylus robustus	mainly peripheral areas of Arabia
	Hemidactylus sinaitus	SW Arabia
	Hemidactylus yerburii	SW and S periphery of Arabia
	Pristurus crucifer	SW periphery of Arabia
	Pristurus flavipunctatus	SW periphery of Arabia
	Pristurus rupestris	mainly peripheral areas of Arabia
	Ptyodactylus hasselquisti (a)	Arabia
Agamidae	*Uromastyx ocellata* (b)	W coastal Arabia
Scincidae	*Chalcides ocellatus*	periphery areas of Arabia
	Mabuya brevicollis	mostly SW and S periphery of Arabia
Lacertidae	*Latastia longicaudata* (c)	SW coastal Arabia
	Mesalina martini	SW periphery of Arabia
Typhlopidae	*Ramphotyphlops braminus*	introduced: scattered distribution in Arabia
Leptotyphlopidae	*Leptotyphlops macrorhynchus*	Arabia
Elapidae	*Naja haje* (d)	W and S Arabia
Colubridae	*Coluber* (?) *rhodorachis*	Arabia
	Dasypeltis scabra	SW periphery of Arabia
	Lamprophis fuliginosus (e)	SW periphery of Arabia
	Psammophis schokari	Arabia
	Telescopus dhara	Arabia
Viperidae	*Bitis arietans* (f)	SW and S periphery of Arabia
	Echis pyramidum (g)	SW and S periphery of Arabia

(a) *P. hasselquisti hasselquisti* in Arabia, *P. hasselquisti ragazzi* in Somalia; (b) *Uromastyx ocellata ornata* and *U. ocellata philbyi* in Arabia, *U. ocellata macfadyeni* in Somalia; (c) *L. longicaudata andersonii* Boulenger, 1921 in Arabia, *L. longicaudata longicaudata*, *L. longicaudata revoili* and *L. longicaudata lanzai* in Somalia; (d) *N. haje arabica* Scortecci, 1932 in Arabia, *N. haje haje* in Somalia; (e) *L. fuliginosus arabicus* in Arabia, *L. fuliginosus fuliginosus* in Somalia; (f) *B. arietans arietans* in Arabia, *B. arietans somalica* in Somalia; (g) probably represented by different subspecies in Arabia and Somalia.

Agamodon (A. anguliceps and *A. compressus* vs *A. arabicus), Stellio [S. annectens* vs *S. adramitanus* (Anderson, 1896) and *S. yemensis* (Klausewitz, 1954)([12])] and *Spalerosophis [S. josephscorteccii* vs *S. diadema* (Schlegel, 1837)].

As already stated, at least 24 reptilian species of the 197 non-marine ones (= 12.18%) are known to inhabit both Somalia and the Arabian Peninsula (Table V)([13]). The hypotheses, sometimes widely speculative, which could explain their presence in the two countries are analysed as follows:

Pelomedusa subrufa (monotypic). Probably it reached SW Arabia from Africa through the Würmian Bāb-al-Mandab landbridge. An active migration by swimming or an introduction by man, even though improbable, cannot be excluded, as the species occurs also in Madagascar, where it doubtless arrived recently.

([12]) The name *yemenensis*, used f.i. by Moody (1980), Welch (1983), Arnold (1986, 1987), Schätti (1989) and Joger (1987), is misspelt.

([13]) Sinai is excluded as its faunistic affinities are more with Egypt, the Jordan — Dead Sea — Wādī al-'Araba representing a major faunistic border.

Hemidactylus flaviviridis (monotypic). This Oriental anthropocorous species almost certainly reached Arabia and Somalia by human agency.

Hemidactylus robustus (monotypic). An anthropophilous species probably of Eastafrican origin and introduced in Asia by man.

Hemidactylus sinaitus (monotypic). Almost certainly a N Ethiopian and Sudanese species, which probably reached SW Arabia in recent times through the Würmian Bāb-al-Mandab landbridge.

Hemidactylus yerburii (monotypic ?). Probably a SW Asian species of recent arrival in Somalia by human agency or through the Würmian Bāb-al-Mandab landbridge.

Pristurus cruficer, P. flavipunctatus, P. rupestris (all monotypic). According to Joger (1987), the Somali-Arabian genus *Pristurus* and the closely related monotypic genus *Quedenfeldtia* Boettger, 1863 from W Morocco are «relics of a very ancient and now widely extinct Afroarabian herpetofauna». As the three species are monotypic, the definitive separation between their Asian and African populations probably does not go further back than the late Pliocene. A more ancient discontinuity could be hypothesized only admitting that they are stasigenetic species.

Ptyodactylus hasselquisti (polytypic). The genus clearly had an Arabian evolutionary centre and probably invaded North Africa quite recently (cf. Joger, 1987); the species is represented in Somalia by the N African subspecies *ragazzi*, while Egypt (Nile Valley) and Arabia are inhabited by one or more different subspecies (by the nominal one according to Heimes, 1987).

Uromastyx ocellata (polytypic). *Uromastyx* is a SW Asian genus «which must have invaded Arabia at the time of the closure of the Tethys Sea in the middle Miocene, about 18 mybp» (Joger, 1987), i.e. later than the opening of the Red Sea. The species, which inhabits the coasts of the Red Sea with four well-differentiated subspecies, probably reached Africa migrating through Sinai and/or through the Bāal-Mandab Straits just before its Pliocene opening or even during the Würm.

Chalcides ocellatus (polytypic). This widespread species, belonging to a Saharo-Sindian genus, seems to occur in Somalia only in a few, mostly coastal cities, which it probably reached by human agency. Also the melanistic, seemingly isolated population of Lugh, on the Juba River (*C. o. sacchii*), almost certainly originated form an ancient introduction. Regarding the possibility of this species being passively transported by man cf. Lanza & Bruzzone (1960: 313-314).

Mabuya brevicollis (polytypic ?) and *Latastia longicaudata* (polytypic). Almost certainly Eastafrican species which probably reached Arabia through the Bāb-al-Mandab Straits just before its Pliocene opening or even during the Würm (see below, *Mesalina martini*).

Mesalina martini (monotypic). A species belonging to a Saharo-Sindian genus and to a mostly Northafrican group of species [*M. olivieri* (Audouin, 1829), *guttulata* (Lichtenstein, 1823) etc.]; it probably reached SW Arabia (South Yemen) through the Würmian Bāb-al-Mandab landbridge. However

its arrival from N (Sinai) cannot be excluded; it would have been followed by a range restriction due to the post-Würmian climatic deterioration and/or to other ecological factors, e.g. to the competition (see also Arnold, 1987: 252). According to my opinion, a range restriction must be postulated also for some of the Afro-Arabian species at present inhabiting only the SW and/or S periphery of the Arabian Peninsula [e.g. *Mabuya brevicollis*, inhabiting also central Arabia with two relict propulations (Bureidah and Riyadh area), *Latastia longicaudata, Naja haje, Dasypeltis scabra, Lamprophis fuliginosus, Bitis arietans,* and *Echis pyramidum*].

Ramphotyphlops braminus (monotypic). An Oriental, parthenogenetic, all-female species introduced by man both in Arabia and Somalia, and destined to become pantropical.

Leptotyphlops macrorhynchus (polytypic). A mainly Saharo-Sindian species, reaching its southeasternmost distributional limit in N Somalia. The uniformity of the species, of which only a subsp. *bilmaensis* from Niger has been described, seems to indicate, stasigenesis apart, that African and Asian populations became partially isolated from each other only in relatively recent times.

Naja haje (polytypic). Seemingly an African species which, probably during the Würm, reached Arabia, where it evolved in the scarcely differentiated subspecies *arabica* Scortecci, 1932 (see above, *Mesalina martini*).

Coluber (?) *rhodorachis* (polytypic). A fundamentally Saharo-Sindian species represented in East Africa by a subspecies poorly differentiated from that inhabiting N Africa and Arabia. The separation between Eastafrican and Arabian populations probably does not go further back than the Pleistocene, more probably the late Pleistocene (Würm).

Dasypeltis scabra, Lamprophis fuliginosus, Bitis arietans and *Echis pyramidum*. African species which probably reached Arabia through the Würmian Bāb-al-Mandab landbridge (see above, *Mesalina martini*). *Dasypeltis scabra* is monotypic; the other three species are polytypic and represented by different subspecies in Somalia and Arabia.

Psammophis shokari (monotypic) and *Telescopus dhara* (monotypic ?). The separation between Eastafrican and Arabian populations of these species, more or less widespread in the N half of Africa and in SW Asia, probably does not go further back than the late Pleistocene (Würm).

ACKNOWLEDGEMENTS

I am very indebted for their advice and/or the loan of specimens to: E.N. Arnold (London), A. Azzaroli (Firenze), M. Boccaletti (Firenze), W. Böhme (Bonn), D. G. Broadley (Bulawayo), B. Clarke (London), R.C. Drewes (S. Francisco), A. Dubois (Paris), F. Ferrara (Firenze), J. Gasperetti (Jeddah), A.G.C. Grandison (London), B. Hughes (London), I. Ineich (Paris), U. Joger (Darmstadt), E. Kramer (Basel), M.J. Largen (Liverpool), S.M. Moody (Athens, Ohio), M. Mussi (Roma), J.L. Perret (Genève), J.B. Rasmussen (Køben-

havn), M. Sagri (Firenze), B. Schätti (Genève), A. Schiøtz (Charlottenlund, Denmark), A. F. Stimson (London), S. Taiti (Firenze), R.M. Tandy (Austin, Texas), D. Torre (Firenze), V. Wallach (Baton Rouge, Louisiana).

To each of them I extend my grateful thanks. Not always was I in the position to incorporate all comments and suggestions in the final text and I take of course full responsability for the contents of this paper.

BIBLIOGRAPHY

ABBATE E., BRUNI P., FAZZUOLI M., SAGRI M., 1988 - *The Gulf of Aden continental margin of northern Somalia: tertiary sedimentation, rifting and drifting.* - Mem. Soc. geol. ital. **31** (1986): 427-445, 12 figs.

ABUKAR OSMAN ABIKAR, in preparation - *Environmental history of Somalia.*

ARNOLD E.N., 1977 - *Little-known geckoes (Reptilia: Gekkonidae) from Arabia with description of two new species from Sultanate of Oman.* - In: The Scientific Results of the Oman Flora and Fauna Survey 1975. J. Oman Studies. Special Report **1**: 81-110, 8 figs, 1 map.

ARNOLD E.N., 1980 - *The reptiles and amphibians of Dhofar, southern Arabia.* - In: The Scientific Results of the Oman Flora and Fauna Survey 1977 (Dhofar). J. Oman Studies. Special Report **2**: 273-332, 32 figs, 1 map.

ARNOLD E.N., 1986a - *The hemipenis of lacertid lizards (Reptilia: Lacertidae): structure, variation and systematic implications.* - J. nat. Hist. (London), **20**: 1221-1257.

ARNOLD E.N., 1986b - *A key and annotated check list to the lizards and amphisbaenians of Arabia.* - Fauna of Saudi Arabia, **8**: 385-435, 30 figs.

ARNOLD E.N., 1987 - *Zoogeography of the reptiles and amphibians of Arabia* (pp. 245-256, 1 fig.). - In: Krupp F., Schneider W., Kinzelbach R. (editors); Proceedings of the Symposium on the Fauna and Zoogeography of the Middle East, Mainz 1985; Wiesbaden; Dr. Ludwig Reichert Verlag.

AZZAROLI A., 1968 - *On the evolution of the Gulf of Aden.* - Proceedings 23rd Intern. Geol. Congress, Praha, **1**: 125-134, 2 figs.

BALLETTO E., 1968 - *Contributo alla biogeografia della Somalia.* - Boll. Musei Ist. biol. Univ. Genova, **36** (248): 191-280, 17 figs.

BALLETTO E., CHERCHI M.A., GASPERETTI J., 1985 - *Amphibians of the Arabian Peninsula.* - Fauna of Saudi Arabia, **7**: 318-392, 31 figs, 7 colour pls with 26 figs.

BEZY R.L., DREWES R.C., 1985 - *Specific status of the East African colubrid snake, Psammophis tanganicus.* - J. Herp., **19** (2): 246-253, 4 figs.

BÖHME W., 1985 - *Zoogeographical pattern of the lizard fauna of the African subsaharan savanna belt, with preliminary description of a new chameleon.* (pp. 471-478, 3 figs). - In: Schuchmann K.L. (editor); Proceedings of the International Symposium on African Vertebrate: systematics, phylogeny and evolutionary ecology, Museum Alexander Koenig, Bonn 1985; 585 pp.

BÖHME W., JOGER U., SCHÄTTI B., 1989 - *A new Monitor Lizard (Reptilia: Varanidae) from Yemen, with notes on ecology, phylogeny and zoogeography.* - Fauna of Saudi Arabia, **10**: 433-448, 9 figs.

BÖHME W., SCHMITZ G., MESSER J., 1989 - *Erster Nachweis der Gattung Telescopus für die Schlangenfauna Marokkos.* - Salamandra, **25** (2): 73-76, 1 fig.

BRANCH W.R., 1979 - *The venomous snakes of southern Africa. Part 2. Elapidae and Hydrophilidae.* - The Snake, **11**: 199-225, 20 figs.

BROADLEY D.G., 1966 - *A review of the Riopa sundevalli group (Sauria: Scincidae) in Southern Africa.* - Arnoldia, **2** (34): 1-7 1 fig.

BROADLEY D.G., 1983 - *Fitzsimons' snakes of Southern Africa.* - Johannesburg and Cape Town; Delta Books (PTY) Ltd and Delta House; 376 pp., 209 figs, 83 maps, 2 pls with 85 figs.

BROADLEY D.G., 1987 - *A review of geographical variation in Gerrhosaurus major Duméril (Sauria: Cordylidae).* - Herp. J., **1**: 194-198, 2 figs.

BROADLEY D.G., in preparation - *A review of the savanna species of Lycophidion (Serpentes: Colubridae) in northeastern Africa.*

BOUCARUT M., CLIN M., 1979 - *Structural history of the Republic of Djibouti: a summary* (pp. 541-544, 11 figs). In: Geodynamic evolution of the Afro-Arabian rift system; Roma; Accademia Nazionale dei Lincei.

BOULENGER G.A., 1895 - *An account of the reptiles and batrachians collected by Dr. A. Donaldson-Smith in western Somali-land and the Galla Country.* - Proc. zool. Soc. Lond., **1895**: 530-540, pls 29-30.

ČERLIN V.A., 1983 - *Vestnik Zoologii.* - **1983** (2): 42-46, 3 figs [New facts on the taxonomy of snakes of the genus Echis. English translation edited by Hughes B. & Zug G.R.; Smithsonian Herpetological Information Service No. 61, 1984].

CLARK J.D., 1954 - *The prehistoric cultures of the Horn of Africa. An analysis of the Stone Age cultural and climatic succession in the Somalilands and estern parts of Abyssinia.* - Cambridge; Cambridge Univ. Press (new edition, with a foreword by Burkitt M.C.; 1972; New York; Octagon Books; XL+388 pp).
DESTRE R., ROUX P., GENIEZ P., THEVENOT M., BONS J., 1989 - *Nouvelles observations sur l'herpétofaune marocaine.* - Bull. Soc. herp. Fr. **51**: 19-26, 2 figs.
FERRARA F., TAITI S., FAKI A., in preparation - *Biogeography and ecology of the terrestrial isopods from Somalia (Crustacea).*
FROST D.R. (editor), 1985 - *Amphibian species of the world. A taxonomic and geographical reference.* - Lawrence (Kansas); Allen Press Inc. & The Association of Systematic Collections; V+732 pp.
GASPERETTI J., 1988 - *Snakes of Arabia.* - Fauna of Saudi Arabia, **9**: 169-450, 135 figs + 29 colour figs.
GIRDLER R.W., 1969 - *The Red Sea. A geophysical background* (pp. 38-57). - In: Degens E.T., Ross D.A. (editors); Hot brines and recent heavy metal deposits in the Red Sea; Berlin; Springer Verlag.
GIRDLER R.W., 1984 - *The evolution of the Gulf of Aden and Red Sea in space and time.* - In: Marine Science of the North-West Indian Ocean and adjacent waters. - Deep-sea research part A. Oceanographic Research Papers, **31**: 747-762, 11 figs.
GRAS U., 1988 - *Neuer Beleg für Lamprophis fuliginosus fuliginosus (Boie, 1827) in Südmarokko (Serpentes: Colubridae).* - Salamandra, **24** (1): 69-71, 1 fig.
GRUBER U., HELLMANN V., 1984 - *Ein neuer Fund der afrikanischen Eierschlange.* - Spixiana, **7**(3): 323-326.
HÅKANSSON T., MADSEN T., 1983 - *On the distribution of the black mamba (Dendroaspis polylepis) in West Africa.* - J. Herp., **12** (2): 186-189, 1 fig.
HEIMES P., 1987 - *Beitrag zur Systematik der Fächerfinger (Sauria: Gekkonidae: Ptyodactylus).* - Salamandra, **23** (4): 212-235, 13 figs.
HEYBROEK F., 1965 - *The Red Sea Miocene evaporite basin.* (pp. 17-40). - In: Salt basins around Africa; London; Institute of Petroleum.
HUGHES B., 1983 - *African snake faunas.* - Bonn. zool. Beitr., **34** (1-3): 311-356, 6 figs.
HUGHES B., 1985 - *Progress on a taxonomic revision of the African Green Tree Snakes (Philothamnus spp.).* (pp. 511-529, 17 figs). - In: Krupp F., Schneider W., Kinzelbach R. (editors); Proceedings of the Symposium of the Fauna and Zoogeography of the Middle East, Mainz 1985; Wiesbaden; Dr. Ludwig Reichert Verlag.
HUNT J.A., 1951 - *A general survey of the Somaliland Protectorate 1944-1950 (Final report on «An economic survey and reconaissance of the British Somaliland Protectorate 1944-1950».* - Colonial Development and Welfare Scheme D. 484). VII+203 pp., 49 figs.
JOGER U., 1984 - *Taxonomische Revision der Gattung Tarentola (Reptilia: Gekkonidae).* - Bonn. zool. Beitr., **35** (1-3): 129-174, 11 figs.
JOGER U., 1987 - *An interpretation of reptile zoogeography in Arabia, with special reference to Arabian herpetofaunal relations with Africa* (pp. 257-271, 5 figs). - In: Krupp F., Schneider W., Kinzelbach R. (editors); Proceedings of the Symposium on the Fauna and Zoogeography of the Middle East, Mainz 1985; Wiesbaden; Dr. Ludwig Reichert Verlag.
LANZA B., 1981 - *A check-list of the Somali amphibians.* Monitore zool. ital. (new series) Suppl., **15**: 151-186, 11 figs.
LANZA B., 1983 - *A list of the Somali amphibians and reptiles.* - Monitore zool. ital. (new series) Suppl., **18**: 193-247, 1 fig.
LANZA B., 1987 - *The sex- and age- independent expansion of the finger tips in Lanzarana largeni (Lanza, 1978): a new phenomenon in amphibians (Salientia Ranidae).* - Monitore zool. ital. (new series) Suppl., **22** (10): 117-127, 8 figs.
LANZA B., BRUZZONE C.L., 1960 - *Amphibia* (pp. 286-287, pl. XXIX fig. 1), *Reptilia* (pp. 288-328, pl. XXIX figs 2-3 and pls XXX-XXXVIII). - In: Zavattari E. *et alii*; Biogeografia delle Isole Pelagie. Rendiconti dell'Accademia Nazionale dei XL, (IV series) **11**: 1-471, pls I-LI.
LOVERIDGE A., 1940 - *Revision of the African snakes of the genera Dromophis and Psammophis.* - Bull. Mus. comp. Zool. Harv., **87**: 1-69.
LOVERIDGE A., 1957 - *Check list of the reptiles and amphibians of East Africa (Uganda; Kenya; Tanganyika; Zanzibar).* - Bull. Mus. comp. Zool. Harv., **117** (2): 153-362+I-XXXVI.
MARX H., 1968 - *Checklist of the reptiles and amphibians of Egypt.* - Cairo; United States Naval Medical Research Unit Number Three; III+91 pp; 11 figs; 39 maps (1 to 10+10A+11 to 33+33A+34 to 37).
MOODY S.M., 1980 - *Phylogenetic and historical biogeographical relationships of the genera in the family Agamidae (Reptilia: Lacertilia).* - Dissertation of the degree of Doctor of Philosophy (Zoology) in the University of Michigan. XV+373 pp.; 46 figs; 49 maps.
MUSSI M., 1990 - *Uomo e ambiente nella media valle del Giuba durante l'Olocene antico.* - Biogeographia [Lavori della Società Italiana di Biogeografia] (new series) **13** (1987): 525-540.
PARKER H.W., 1942 - *The lizards of British Somaliland.* - Bull. Mus. comp. Zool. Harv., **91** (1): 1-101, 10 figs.
PARKER H.W., 1949 - *The snakes of Somaliland and the Socotra islands.* - Zool. Verhand., n. **6**: 1-115, 11 figs.

PASTEUR G. , 1981 - *A survey of the species groups of the world scincid genus Chalcides.* - J. Herpetol., **15** (1): 1-16, 5 figs.
PASTEUR G., BROADLEY D.G., 1988 - *A remote, insular species of the Lygodactylus somalicus superspecies (Sauria: Gekkonidae).* - Amphibia - Reptilia, **9** (3): 237-244, 3 figs.
PERRET J.-L., 1987 - *A propos de Ptychadena schillukorum (Werner, 1907) (Anura, Ranidae).* - Bull. Soc. neuchâtel. Sci. nat., **110**: 63-70, 4 figs.
PICCOLI G., BOCCALETTI M., ANGELUCCI A., ROBBA E., ARUSH M.A., CABDULQAADIR M.M., 1988 - *Geological history of central and southern Somalia since the Triassic.* - Mem. Soc. geol. ital., **31** (1986): 415-425, 2 figs, 2 pls.
PITMAN C.R.S., 1974 - *A guide to the snakes of Uganda.* - Revised edition. Codicote; Wheldon & Wesley; XXII+290 pp.; 123 figs; 29 (A-Z, AA-AC) + 3 (1-3) pls; 3 folded tables; 1 map + 1 folded map.
POYNTON J.C., BROADLEY D.G., 1985 - *Amphibia Zambesiaca. 2. Ranidae.* - Ann. Natal. Mus., **27** (1): 115-181.
POYNTON J.C., BROADLEY D.G., 1987 - *Amphibia Zambesiaca. 3. Rhacophoridae and Hyperoliidae.* - Ann. Natal. Mus., **28** (1): 161-229, 2 figs.
RAGE J.C., 1972 - *Eryx Daudin et Gongylophis Wagler (Serpentes, Boidae). Étude ostéologique.* - Bull. Mus. natn. Hist. nat., Paris (3rd series) n. **78** (Zool. 57): 893-898, 1 fig.
RASMUSSEN J.B., 1985 - *A new species of Crotaphopeltis from East Africa, with remarks on the identity of Dipsas hippocrepis Reinhardt, 1843 (Serpentes: Boiginae).* - Steenstrupia **11** (4): 113-129, 10 figs.
RASMUSSEN J.B., 1989 - *On the taxonomic status of Dipsadoboa aulica aulica Günther and D. aulica flavida Broadley and Steven, with the description of a new subspecies of D. flavida Broadley and Steven (Boiginae, Serpentes).* - Amphibia - Reptilia, **10** (1): 35-62, 18 figs.
RIEPPEL O., 1978 - *A functional and phylogenetic interpretation of the skull of the Erycinae (Reptilia, Serpentes).* - J. Zool. Lond., **186**: 185-208, 13 figs.
SAID R., 1962 - *The geology of Egypt.* - Amsterdam and New York; Elsevier Publ. Co.; XV+91 pp.
SALVADOR A., 1981 - *Hemidactylus turcicus* (Linnaeus 1758) - *Europäischer Halbfingergecko* (pp. 84-107, figs 11-16). - In: Böhme W. (ed.), Handbuch der Reptilien and Amphibien Europas 1. Echsen (Sauria) I.; Wiesbaden; Akademische Verlagsgesellschaft; 520 pp., 91 figs.
SCHÄTTI B., 1985 - *Systematics of East African species of Meizodon Fischer, 1856 (Reptilia Serpentes Colubridae).* - Monitore zool. ital. (new series) Suppl., **20**: 149-175, 6 figs.
SCHÄTTI B., 1988 - *Systematics and phylogenetic relationships of Coluber florulentus Geoffroy, 1827 (Reptilia Serpentes).* - Tropical Zoology, **1**: 95-116, 10 figs.
SCHÄTTI B., 1989 - *Amphibien und Reptilien aus der Arabischen Republik Jemen und Djibouti.* Revue suisse Zool., **96** (4): 905-937, 6 figs.
SCHÄTTI B., LANZA B., 1989 - *Coluber messanai, a new species of snake from Northern Somalia (Reptilia, Serpentes).* Boll. Museo regionale Sci. nat., Torino, **7** (2): 413-421, 6 figs.
ŠČERBAK N.N., 1975 - *Katalog afrikanskich jaščurok.* - Kiev; Izdatel'stvo «Naukova dumka»; 49 pp.; 30 maps.
SCHIØTZ A., 1975 - *The treefrogs of eastern Africa.* - Copenhagen; Steenstrupia; 232 pp., 205 figs.
SCORTECCI G., 1933 - *Anfibi della Somalia Italiana.* - Atti Soc. ital. Sci. nat. **72**: 5-70, 5 pls.
SPAWLS S., 1978 - *A checklist of the snakes of Kenya.* - J. East African nat. Hist. Soc. and nat. Mus., **31** (n. 167): 1-18.
STEMMLER O., 1971 - *Die Eierschlange, Dasypeltis scabra (Linnaeus, 1758), eine weitere äthiopische Form in der marokkanischen Herpetofauna (Reptilia Colubridae).* - Zool. Abh. st. Mus. Tierk., Dresden, **32** (6): 69-73.
STYLES P., HALL S.A., 1979 - *A comparison of the seafloor spreading histories of the western Gulf of Aden and the central Red Sea* (pp. 585-606, 16 figs). - In: Geodynamic evolution of the Afro-Arabian rift system; Roma; Accademia Nazionale dei Lincei.
TOKAR A.A., 1989 - *Revizija roda Eryx (Serpentes, Boidae) po osteologičeskim dannym.* - Vestnik Zoologii, **1989** (4): 46-55, 6 figs.
TROLL C., 1966 - *Seasonal climates of the earth. The seasonal course of natural phenomena in the different climatic zones of the earth* (pp. 19-25). - In: Landsberg *et alii* (editors). World maps of climatology (3rd ed.); Berlin-Heidelberg-New York; Springer-Verlag; VI+28 pp., 5 maps.
WALLACE A.R., 1876 - *The geographical distribution of animals, with a study on the relationships of living and extinct faunas as elucidating the past changes of the earth's surface.* - London, Macmillan and Co.; vol. 1: XXIV+503 pp., 13 (I-XIII) pls, 5 maps; vol. 2: XII+607 pp., 7 (XIV-XX) pls, 2 maps.
WELCH K.R.G., 1983 - *Herpetology of Europe and Southwest Asia: a checklist and bibliography of the Orders Amphisbaenia, Sauria and Serpentes.* - Malabar (Florida); Robert E. Krieger Publishing Company; VIII+135 pp.
WIEGMANN A.F.A., 1837 - *Herpetologische Notizen.* - Arch. Naturg., **3**: 123-136.
ZEUNER F.E., 1945 - *The Pleistocene period, its climate, chronology and faunal successions.* - London; Ray Society; 322 pp.