
Katalog der afrikanischen Wüstenrenner (Reptilia: Sauria: Eremiainae: Lampreremias, Pseuderemias, Taenieremias, Mesalina, Meroles) **

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INTRODUCTION

A systematic revision of the genus Eremias published in a preceding paper (SZCZERBAK 1971) showed that this arbitrarily formed cluster of preliminary nature is doubtlessly of polyphyletic origin. The author considered the African centre of speciation to be autonomous. Thus, only the representatives of the Asiatic species were ranked with the genus Eremias

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and treated in a separate monography (SZCZERBAK 1974). In the present paper the species of African origin are arranged in five genera: *Lampreremias*, *Pseuderemias*, *Taenieremias*, *Mesalina* and *Meroles* [aa*, bb*].

Similar attempts were already made in former times: BOULENGER (1887, 1921) for instance suggested subdividing the Sand Lizards into “sections”. But, despite insufficient arguments, this classification was not accepted by the specialists (TERENT’EV 1961). However, such kind of grouping is absolutely justified both from morphological and geographic points of view, as will be shown later by means of tables for identification and distribution maps. The deserts of Northeast and Southwest Africa are separated from each other by vast belts of tropical rain forests which do not provide suitable habitats for Sand Lizards but harbour peculiar groups of related species.

MERTENS (1955) pointed out the formal nature of the generic names in their old meaning and separated the West African Sand Lizards by creating an individual genus named *Meroles*. Nevertheless the Sand Lizards of the Asiatic and African continent also have a lot of characters in common. As is typical of the whole species-complex the nares are bordered by 3 to 4 nasals and are not in contact with the supralabials. It is just possible that many of the characters are adaptive, since the majority of the Sand Lizards inhabits arid areas, mainly steppes and deserts. As it is generally known, characters of the pholidosis, which are important criteria in reptile systematics, are taken into consideration. This method turned out to be correct. For that reason it is possible to unite the closely related genera into the individual subfamily Eremaianae [cc*].

A catalogue - this is laconic and operative information concerning systematics, a comfortable guide for the expert and a reference book to specialists in other groups of animals. The preparation of a catalogue requires fair knowledge and is usually the result of the accumulation of information about these or those taxa. For our country a catalogue of the recent vertebrates is not yet available. The ornithologists and mammalogists of the Institute of Zoology of the Academy of Sciences of the USSR are just about to compile catalogues of the animals they are working on concerning the USSR. In this respect the present catalogue is the first one in this manner in our country.
In the last 50 years after the publication of BOULENGER's (1921) well known catalogue, new species and forms of Sand Lizards were described by the explorers of the African fauna and new data on systematics and range were obtained. In the present paper the current opinions concerning taxonomy and distributive patterns of the African Sand Lizards (situation Jan. 1, 1974) are reviewed; furthermore the synonyma of their names are listed and bibliography, tables for identification and short diagnoses of the particular taxa are published for the first time in the Soviet literature.

The present work was prepared between 1971 and 1974 in the laboratories of the Zoological Museum of the Institute of Zoology of the Academy of Sciences in USSR. Apart from evaluation of hardly accessible literature there was the opportunity to become acquainted with specimens from many foreign and Soviet Union museums, first of all the rich collections of the Institute of Zoology of the Academy of Sciences in the USSR. The author is obliged to the director of the Department of Herpetology of the Institute of Zoology of the Academy of Sciences of the USSR, Dr. I. S. DAREVSKI and his colleagues for their help in preparing the present paper.

Class - Reptilia
Subclass - Squamata
Order - Sauria
Family - Lacertidae
Subfamily - Eremiainae

Key to the genera of the African Sand Lizards (Lacertidae: Eremiainae) [cc*]
1. Toes and claws serrated laterally .......... Meroles GRAY, South Africa
2. Toes and claws not serrated laterally ................................................................. 3
3. 3 nasals present (rarely 4; if so, then toes not depressed), subdigital lamellae bi- or tricarinate ................................................................. 5
4. 4 nasals present. Toes strongly depressed, subdigital lamellae unicarinate ............... Pseuderemias BOETTGER, NE Africa, Sinai Peninsula
5. Ventral plates in 6 (rarely 8) longitudinal series ...........................................

........................................ Lampreremias BOULENGER, tropical Africa [dd*]
6. Ventral plates in more than 8 longitudinal series ........................................... 7
7. Occipital distinct .......................... Mesalina GRAY, Africa, SW Asia [ee*]
8. Occipital not present ................................................. Taenieremias
    BOULENGER, W Africa, only one species known: ... T. guineensis [ff*]

Genus Mesalina GRAY [ee*]
Species typica: Mesalina rubropunctata
3 nasals. The lower in contact with the rostral and the first (very rarely first and second) upper labial. Ventral plates in 10 - 18 (exceptionally 8) straight longitudinal series, rarely irregular or tessellated. Occipital usually distinct. Toes feebly depressed, with bi- or tricarinate lamellae inferiorly. This genus seems to be composed of several groups and includes 6 species from northern Africa, some of which are found also in southwestern Asia, and 7 species from southern Africa.

Key to the species of the genus Mesalina GRAY
1. Collar curved or angular [gg*, hh*]......................................................... 3
2. Collar straight [ii*]....................................................................................13
3. Nasals largely in contact behind the rostral................................................. 5
4. Nasals not (rarely punctually) in contact behind the rostral......................... 9
5. Lower eyelid with 2 enlarged transparent, dark-edged scales......................7
6. Lower eyelid with 5-6 transparent, not dark-edged scales...M. olivieri
7. 4 upper labials anterior to subocular....................................................... M. guttata
8. 5 upper labials anterior to subocular....................................................... M. pasteuri
9. Occipital present, in contact with interparietal..............M. rubropunctata
10. Occipital usually absent, if present, then not in contact with interparietal.............................11
11. Ventral plates in 10 longitudinal series............................... M. adramitana
12. Ventral plates in 12 longitudinal series............................... M. brevirostris
13. A narrow tympanic shield at the upper anterior border of the ear-opening, ventral plates in 10-12 longitudinal series...............................15
14. No tympanic shield present, ventral plates in 12-18 (rarely 10) longitudinal series, which are frequently arranged irregularly................................. 19
15. Lower eyelid semitransparent, formed of 10-12 enlarged scales. The area in front of the first supraocular is covered by 3 - 8 small scales or granules.............................................................M. namaquensis
16. Lower eyelid with large transparent disk, formed of 1-6 black-edged
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scales. The area in front of the first supraocular is covered by 5 - 16 small scales or granules ................................................................. 17
17. Lower eyelid with a transparent disk formed of a single scale .......... ................................. \textit{M. benguelensis} [ii*]
18. Lower eyelid with large transparent disk, formed of 2-6 black-edged scales and 2-6 smaller scales below ........................................... \textit{M. undata} [ii*]
19. Lower eyelid with 10 - 20 semitransparent scales .......................... \textit{M. lineo-ocellata} 21
20. Lower eyelid with large transparent disk, formed of 2 black-edged scales ............................................................................. \textit{M. breviceps}
21. Ventral plates in 12 longitudinal series ........................................... \textit{M. laticeps}
22. Ventral plates in 16 - 18 longitudinal series ................................. \textit{M. burchelli}
23. 48 - 62 scales across middle of dorsum. Nasals usually not in contact behind rostral ................................................................. \textit{M. laticeps}
24. 62 - 75 scales across middle of dorsum. Nasals usually in contact behind rostral ................................................................. \textit{M. burchelli}

\textit{Mesalina guttulata} (LICHTENSTEIN), 1823 [hh*]
Terra typica: Egypt
Range: North Africa, Near East (from Algeria to Pakistan, in the north to Tshardshou in the Turkmenian SSR, in the south to the Peninsula of Somalia and Baluchistan)

\textit{Mesalina guttulata guttulata} (LICHTENSTEIN), 1823 [hh*]
Terra typica: Egypt

\textit{Mesalina guttulata watsonana} (STOLICZKA), 1872 [hh*]
Terra typica: Sind, between Karachi and Sukkur
Range: Pakistan, Afghanistan, Iran and Turkmenia

\textit{Mesalina guttulata susana} (BOULENGER), 1918
Terra typica: Susa, Tunisia
(no data concerning range are provided by SZCZERBAK)

\textit{Mesalina olivieri} (AUDOIN), 1829 [hh*]
Terra typica: Egypt
Range: Morocco, Algeria, Tunisia, West Sahara, Mauritania, Senegal, Saudi Arabia, Aden, Somalia, Ethiopia, Sudan, Peninsula of Sinai and Socotra Island
Mesalina olivieri olivieri (AUDOIN), 1829 [hh*]
Terra typica: Egypt
Range: Saudi Arabia, Algeria, Tunisia and Peninsula of Sinai

Mesalina olivieri simoni (BOETTGER), 1881 [hh*]
Terra typica: Casablanca, western Atlas
Range: Morocco

Mesalina olivieri martini (BOULENGER), 1897 [hh*]
Terra typica: Obok, coast of the Red Sea
Range: Sinai Peninsula, Aden, Somalia, western coast of the Red Sea from Sudan to French Territory of Afar and Issa

Mesalina olivieri schmidtii (HAAS), 1951
Terra typica: Israel, Wadi Nefk
Range: Israel

Mesalina olivieri balfouri (BLANFORD), 1881 [hh*]
Terra typica: Socotra Island
Range: known only from Socotra Island (Gulf of Aden)

Mesalina olivieri latasti (BOULENGER), 1918
Terra typica: near Aumale
Range: Algeria

Mesalina adramitana (BOULENGER), 1917
Terra typica: southern Arabia, Hadramaut
Range: southern and eastern Arabia

Mesalina brevirostris BLANFORD, 1874
Terra typica: Punjab, Kalabag
Range: northern Arabia from the West coast of the Gulf of Persia, Sinai Peninsula and Syria eastwards to Baluchistan and Punjab

Mesalina brevirostris brevirostris BLANFORD, 1874
Terra typica: Punjab, Kalabag
Range: Pakistan, Iran, Syria, Iraq, Saudi Arabia and Sinai Peninsula

Mesalina brevirostris microlepis (ANGEL), 1936
Terra typica: Haouarino, 55 km SE of Homs, Syria
Range: Syria
Mesalina pasteuri (BONS), 1960
Terra typica: Amguit (Ahaggar)
Range: north-western, central and southern Sahara

Mesalina rubropunctata (LICHTENSTEIN), 1823
Terra typica: Egypt and Nubia
Range: Morocco, Algeria, Niger, northern parts of Libya, Sudan, Mali and Saudi Arabia

Mesalina namaquensis (DUMERIL & BIBRON), 1839
Terra typica: Namaqualand
Range: from South Angola, South West Africa, Namaqualand and Cape Province, eastwards to Botswana

Mesalina breviceps (STERNFELD), 1911
Terra typica: Walvis Bay, Namibia
Range: Namibia

Mesalina undata (A. SMITH), 1838 [ee*, ii*]
Terra typica: northern and western parts of Cape Colony
Range: Namibia and western parts of Republic of South Africa

Mesalina undata undata (A. SMITH), 1838 [ee*, ii*]
Terra typica: northern and western parts of Cape Colony
Range: Namibia and northwestern parts of Republic of South Africa

Mesalina undata gaerdesi (MERTENS), 1954 [ee*, ii*]
Terra typica: Tsisab Canyon, Brandberg, Damaraland, Southwest Africa
Range: Namibia

Mesalina undata rubens (MERTENS), 1954 [ee*, ii*]
Terra typica: Okatjikona Farm, Waterberges, Southwest Africa
Range: Namibia

Mesalina benguelensis (BOCAGE), 1867 [ee*, ii*]
Terra typica: Benguela, Angola
Range: western districts of Angola

Mesalina laticeps (A. SMITH), 1838 [ee*]
Terra typica: arid areas of Cape Colony
Range: Republic of South Africa and southern parts of Namibia
MERTENS (1955) drew the attention to the fact that the name *Lacerta capensis* A. SMITH, 1938, was preoccupied by *Lacerta capensis* SPARR-MANN, 1783 (= *Varanus n. niloticus*). Thus, the species must be named “*laticeps*” in accordance to a later synonym by the same author.

*Mesalina lineo-ocellata* (DUMERIL & BIBRON), 1839 [ee*]
Terra typica: South Africa
Range: Republic of South Africa, Namibia and Botswana

*Mesalina lineo-ocellata lineo-ocellata* (DUMERIL & BIBRON), 1839 [ee*]
Terra typica: South Africa
Range: Republic of South Africa, Namibia and Botswana

*Mesalina lineo-ocellata inocellata* (MERTENS), 1955 [ee*]
Terra typica: between Bay of Lüderitz and Aus, Great Namaqualand
Range: Namibia

*Mesalina lineo-ocellata pulchella* (GRAY), 1845 [ee*]
Terra typica: South Africa
Range: Namibia, Republic of South Africa, Botswana

*Mesalina burchelli* (DUMERIL & BIBRON), 1839 [ee*]
Terra typica: South Africa
Range: Republic of South Africa

Genus *Lampreremias* BOULENGER [dd*]
Species typica: *Lampreremias nitida* (GÜNTEGER), 1872
3 (rarely 4) nasals, the lower in contact with the 1. upper labial (rarely first and second) and with the rostral. Ventral plates 6 (exceptionally 8) longitudinal series. Toes not or but feebly depressed, with bi-or tricarinate lamellae inferiorly. Dorsal scales keeled. No occipital shield present. There are 3 species known to be distributed all over tropical Africa.

Key to the species of the genus *Lampreremias*

1. Frontal in contact with two supraoculars. The lower nasal is in punctual contact with the rostral or not.......................................................... 3
2. Frontal not in contact with supraocular (separated from each other by small scales), lower nasal extensively in contact with rostral.......... 5
3. 42-64 scales across middle of dorsum. 21-24 lamellae under the 4. toe.......................... L. nitida GÜNTHER

4. 65-68 scales across middle of dorsum. 26 lamellae under the 4. toe ... .............................................. L. nitida quadrinasalis CHABANAUD

5. 60-77 scales across middle of dorsum. 20-26 lamellae under the 4. toe, upper head-shields striated ............................................................ L. spekii GÜNTHER

6. 68-87 scales across middle of dorsum. 25-29 lamellae under the 4. toe, upper head-shields smooth..........................L. lugubris SMITH

**Lampreremias nitida** (GÜNTHER), 1872
Terra typica: western Africa
Range: Togo, northern Nigeria, Republic of Chad, Dahomey, Central African Republic and northern districts of Republic of Zaire

**Lampreremias nitida nitida** (GÜNTHER), 1872
Terra typica: western Africa
Range: northern Nigeria, Togo and Dahomey

**Lampreremias nitida garambensis** (SCHMIDT), 1919
Terra typica: Garamba, Zaire
Range: Zaire and Central African Republic

**Lampreremias nitida quadrinasalis** (CHABANAUD), 1918
Terra typica: Fort Arschambo, Chad
Range: Republic of Chad

**Lampreremias spekii** (GÜNTHER), 1872
Terra typica: eastern Africa (5° 7' southern latitude, between the coast and Unjamwesi)
Range: northern Somalia, southern Ethiopia, southern Sudan, Uganda, Kenya and Tanzania

**Lampreremias spekii spekii** (GÜNTHER), 1872
Terra typica: East Africa (5° 7' southern latitude, between the coast and Unjamwesi)
(No data concerning range are provided in the original paper.)

**Lampreremias spekii sextaeniata** (STEINEGER), 1894
Terra typica: Tana River, Kenya
Range: Sudan, Kenya and Somalia
Lampreremias spekii scortechii (ARILLO, BALLETO & SPANO), 1965
Terra typica: Migiurtinia, Somalia
Range: Somalia

Lampreremias lugubris (SMITH), 1838
Terra typica: “District immediately beyond the northern frontier of the Colony”
Range: Namibia, Botswana, Republic South Africa, southern Rhodesia, southern Angola and Mozambique

Genus Pseuderemias BOETTGER
Species typica: Pseuderemias mucronata (BLANFORD, 1870)
4 nasals. Two lower nasals are in contact with the 2 or 3 first upper labials. The anterior nasal is in contact with the rostral. Ventral plates in 5-10 longitudinal series. The toes are strongly depressed with unicarinate lamellae inferiorly. Frontal separated from the supraoculars by a row of small granular scales. Dorsal scales keeled or smooth. Occipital shield present. 7 species are known to be distributed over northeastern Africa and the Sinai Peninsula.

Key to the species of the genus Pseuderemias
1. Upper head shields smooth or rugose, not striated......................... 3
2. Upper head shields striated.................................................................. 11
3. More than 60 scales across middle of dorsum. Upper caudal scales strongly keeled.......................................................... 5
4. Less than 60 scales across middle of dorsum. Upper caudal scales feebly keeled ........................................ P. erythrosticta BOULENGER
5. Ventral plates at most in 8 longitudinal series..................................... 7
6. Ventral plates at least in 10 longitudinal series....................................
   ........................................................................................................ P. savagei LAURENT & GANS
7. 5 dorsal stripes...................................................................................... 9
8. 7 dorsal stripes...................................................................................... P. septemstriatu PARKER
9. Ventral plates in 6-8 longitudinal series. Subocular frequently bordering the mouth. Posterior subcaudals smooth ........................................
   ........................................................................................................ P. mucronata BLANFORD
10. Ventral plates in 8-10 longitudinal series. Subocular not reaching the mouth. Posterior subcaudals keeled ...................... P. smithii BOULENGER
11. Upper head-shields strongly striated. Subocular bordering mouth. 13-18 femoral pores on each side. ...................... P. striata PETERS
12. Upper head-shields finely striated. Subocular not reaching mouth. 20-24 femoral pores on each side. ...................... P. brenneri PETERS

_Pseuderemias mucronata_ (BLANFORD), 1870  
Terra typica: Anseba Valley, Ethiopia  
Range: Northwest Somalia, Eritrea, eastern Sudan, coasts of the Red Sea in Egypt and Sinai Peninsula

_Pseuderemias smithii_ (BOULENGER), 1895  
Terra typica: Milmil, western Somalia  
Range: northern parts of Somalia and also known from Kenya

_Pseuderemias septemstriata_ (PARKER & HAMPTON), 1942  
Terra typica: Somalia, Migiurtinia  
Range: Somalia

_Pseuderemias savagei_ (R. F. LAURENT & C. GANS), 1965  
Terra typica: Somalia, Kandala  
Range: Somalia

_Pseuderemias erythrosticta_ (BOULENGER), 1891  
Terra typica: Somalia  
Range: Somalia

_Pseuderemias brenneri_ (PETERS), 1869  
Terra typica: Somalia, Brava  
Range: northeastern Sudan, Ethiopia, Somalia and Kenya

_Pseuderemias striata_ (PETERS), 1874  
Terra typica: Somalia, Brava  
Range: Kenya and southern Somalia

_Pseuderemias striata striata_ (PETERS), 1874  
Terra typica: Somalia, Brava  
Range: southern parts of Somalia and Kenya

_Pseuderemias striata gardoensis_ (ARILLO, BALLETTO & SPANO), 1965  
Terra typica: Migiurtinia  
Range: southeastern Somalia
Genus *Taenieremias* BOULENGER [ff*]
Species typica: *Taenieremias guineensis*
3 nasals; the lower and the posterior resting on the 1. upper labial. Ventral plates in 10 longitudinal series. Occipital shield absent. Toes feebly depressed, with tricarinate lamellae inferiorly. Dorsal scales smooth. One species is known. It is found in central equatorial Africa.

*Taenieremias guineensis* (BOULENGER), 1887
Terra typica: mouth of the river Niger
Range: southwestern Niger, Nigeria and Cameroun

Genus *Meroles* GRAY
Species typica: *Meroles knoxii*
3 nasals present, which are not in contact with the upper labials. The lower nasal may reach the rostral. Ventral plates in 10-18 longitudinal series, but may also be arranged in an oblique or irregular fashion. If so, the upper labials form an edge. The toes are depressed and fringed laterally in a different degree. The occipital plate is not always present. Accumulations of keeled scales may be found placed in longitudinal order along the dorsum. This genus apparently represents an arbitrary cluster. MERTENS (1955), who revised this genus, placed three closely related species (*knoxii, suborbitalis* and *reticulata*) into the subgenus *Meroles* GRAY and three other species (*ctenodactylus, cuneirostris* and *micropholidotus*) into the subgenus *Saurites* PETERS. BOULENGER (1921) delimited them all from the others by putting them into their own “sectio” *Scapteira* (*Scaptira*).

Key to the species of the genus *Meroles*

1. Ventral plates in straight series. Upper labials not forming a prominent edge............................................. subgenus *Meroles* GRAY............................................. 3
2. Ventral plates not in straight but in oblique series or tessellated. Upper labials forming a prominent edge ..............................................................
   ............................................. subgenus *Saurites* PETERS............................................. 7
3. Toes strongly serrated laterally. Scales in the anterior part of abdomen in 16 - 18 longitudinal series. Lower nasal not in contact with rostral
4. Toes feebly serrated laterally. Ventral plates in 10 - 16 longitudinal rows. Lower nasal in contact with rostral
5. Upper nasals not in contact. Occipital plate missing or minute .............................................

6. Upper nasals in contact. Occipital plate distinct, in contact with interparietal ............................................. Meroles suborbitalis
7. Posterior part of dorsum without enlarged keeled scales ...................... 9
8. Posterior part of dorsum and flanks with a band of small groups of enlarged keeled scales ............................................. Meroles ctenodactylus
9. 3 supraoculars present. Rostral in contact with frontonasal. 90 - 110 scales across middle of dorsum ...................... Meroles cuneirostris
10. 2 supraoculars present. Rostral not in contact with frontonasal. 126 - 138 scales across middle of dorsum .......... Meroles micropholidotus

Meroles ctenodactylus (SMITH), 1938
Terra typica: sandy regions of Little Namaqualand
Range: Republic of South Africa, western parts of Namibia

Meroles knoxii (MILNE-EDWARDS), 1829 [jj*]
Terra typica: Cape of Good Hope
Range: Republic of South Africa, Namibia

Meroles knoxii knoxii (MILNE-EDWARDS), 1829 [jj*]
Terra typica: Cape of Good Hope
Range: Republic of South Africa

Meroles knoxii pequensis (HEWITT), 1935 [jj*]
Terra typica: Bay of Lüderitz, Southwest Africa
Range: Namibia

Meroles micropholidotus (MERTENS), 1938
Terra typica: Bay of Lüderitz
Range: Namibia

Meroles reticulatus (BOCAGE), 1867
Terra typica: Angola, Mocámedes
Range: coasts of Namibia and Angola
**Meroles suborbitalis** (PETERS), 1869
Terra typica: Damaraland
Range: Namibia and western parts of Republic of South Africa

**SUMMARY**

For the last 50 years since the time of the well-known work by BOULENGER (1921) explorers of African fauna described new species and forms of sand lizards and new information about their systematics and distribution was obtained.

The author of this work tries to summarize the contemporary ideas on taxonomy and areals of these species according to the data known by 1st of January 1974. In this work a list of their synonyms, bibliography, diagnoses of genera and determinative tables of species are given.

According to the opinion of the author (SZCZERBAK, 1971) about independence of African centre of formation of species of these lizards, only representatives of Asiatic species belong to the genus Eremias. Species of African origin are classed into five independent genera: *Lampreremias*, *Pseuderemias*, *Taenieremias*, *Mesalina*, *Meroles* (32 species). All species of these lizards are united into the subfamily Eremiainae. This work was carried out during 1971-75 at the laboratories of the Zoological Museum of the Ukrainian Academy of Sciences.

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