

## Catalogue of the available scientific species-group names for lizards of the genus *Phrynocephalus* Kaup, 1825 (Reptilia, Sauria, Agamidae)

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### Abstract

This paper is a review of the specific taxonomy of the lizard genus *Phrynocephalus* Kaup, 1825. From 1771 to 2002, 140 species were either described as members of this genus, or of other genera but subsequently referred to this genus. We have tried to review all the available information on the taxonomic status of these 140 names and the status of their name-bearing types. As a result of this review, 113 types are known to be extant, including 21 lectotypes and 5 neotypes designated in the present paper. As a conclusion of this preliminary analysis, we provisionally distribute these 140 names in 37 valid species names in the genus *Phrynocephalus*, 102 invalid synonyms of the latter names, and 1 nominal species now referred to another genus. The new subgenus *Oreosaura* subgen. nov. is described to accommodate viviparous species from Qinghai-Tibetan Plateau.

**Key words:** Reptilia, Sauria, Agamidae, *Phrynocephalus*, nomenclature, systematics

### Introduction

It is hard to find a more taxonomically complicated group than the genus *Phrynocephalus* Kaup, 1825 among Palearctic lizards. Since the description of *Lacerta helioscopa* by Pallas in 1771, the highly polymorphic toad-headed agamas from Middle and Central Asia have stimulated the description of numerous forms as species and/or subspecies. More than two hundred years later, when it became obvious that in Asia this morphological diversity is superimposed by the great genetic similarity and the occurrence of so-called "substrate races", the taxonomy of this lizard genus became very confusing.

In order to solve controversial systematic problems of this group the modern revision works have used not only traditional methods of systematics (morphology and morphometrics), but also new methodologies such as protein electrophoresis, cytogenetics or ethology. Since these characters cannot be studied on preserved collection specimens, most of the recent works were based on field and laboratory studies or freshly collected specimens, rather than on museum collection specimens. For this reason, ancient descriptions of nominal species or subspecies in the 18th, 19th and early 20th century have been considered of no use for the identification of the specimens on which they were based, and a tendency has developed among some recent specialists to ignore these early descriptions and names. As a result, newly recognized taxa have been described, mostly on the basis of non-morphological methods, and without consideration of the possible existence of earlier names for these taxa. In a complex and speciose genus like *Phrynocephalus*, multiplying the descriptions of "new species" without having first carried out a revision of the status of all existing nominal taxa just opens the door to future nomenclatural problems.

According to the rules of the *International Code of Zoological Nomenclature* (ICZN, 1999; henceforth *Code*), before naming a new taxon, any zoologist should make sure that no scientific name is already available for this taxon. In the case of *Phrynocephalus*, 140 species-group names were published from 1771 to 2002. Before naming any new species or subspecies in this group of lizards, the status of all these 140 names should be clarified. Of course, old specimens cannot be submitted for DNA sequences or karyology. However other information can be used to get evidence about the species which these specimens represent, and hence about the status of the corresponding nominal species: geographic origin; original description and/or figure; morphology of original type specimen(s) if still in existence; morphology of topotypical specimens.

As a first step, we have considered it necessary to review the nomenclatural history of all nominal taxa once referred to this genus, in order to provide a sound basis for further morphological, morphometric, and molecular studies of these lizards. This will be particularly useful in regions where numerous species of this group remain to be described, as seems to be particularly the case in China (E. Zhao & Adler, 1993; E. Zhao *et al.*, 1999). This paper is devoted to the detailed presentation of the results of this work. We stress that this is largely a *nomenclatural review* of the genus *Phrynocephalus*, not a *taxonomic revision*: such work would require much more data, particularly field observations on behaviour, data on colours and on morphological variation within and between populations, molecular and genetic data. However, since nomenclature is not completely independent of taxonomy, we had to address various taxonomic problems in the course of this nomenclatural review; we also provide a few distributional, historical and other pieces of information, when available: these may be useful to future workers on this genus. For all nomenclatural matters, we strictly follow the rules of the current edition of the *Code*.

## Abbreviations

We used the following abbreviations in designation individual specimens from different herpetological collections from the Museums:

BMNH	British Museum (Natural History), Department of Zoology, London, UK
CAS	California Academy of Sciences, San Francisco, California, USA
CIB	Chengdu Institute of Biology, Academia Sinica, Chengdu, Sichuan, P. R. China
HUJ	Hebrew University, Department of Zoology, Jerusalem, Israel
IZANU	Zoological Museum, National Museum of Natural History, Ukrainian Academy of Sciences, Kiev, Ukraine
IZK	Institute of Zoology, Kazakhstan National Academy of Sciences, Almaty, Kazakhstan
MCZ	Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA

MNHN	Museum National d'Histoire Naturelle, Laboratoire des Amphibiens et Reptiles, Paris, France
MKNU	Museum of Nature at V.N. Karazin Kharkiv National University, Kharkiv, Ukraine
MSNG	Museo Civico di Storia Naturale di Genova “Giacomo Doria”, Genova, Italy
MZUT	Museo di Zoologia, Istituto di Zoologia e Anatomia Comparata Universita di Torino, Torino Italy
NMU	Nei Menggu University, Department of Biology, China
NMW	Naturhistorisches Museum, Zoologische Abtheilung, Wien, Austria
SMF	Forschungsinstitut und Natur-Museum Senckenberg, Frankfurt-am-Main, Germany
SRNC	Suzhou Railway Teacher's College, Department of Biology, China
ZISP	Zoological Institute, Department of Herpetology, Russian Academy of Sciences, St. Petersburg, Russia
ZMMU	Zoological Museum, M.V. Lomonosov Moscow State University, Moscow, Russia
ZMB	Zoologisches Museum, Museum fur Naturkunde, Berlin, Germany
ZSI	Zoological Survey of India, Kolkata, India
ZSM	Zoologisches Staatssammlung, München, Germany

*cnu* Catalogue number unknown

*ex* Original collection or collection number, now changed

SVL Snout-vent length

TL Tail length

### Methodology followed in the list of nominal species

We attempted to trace all scientific species-group names ever published for lizards now referred to the genus *Phrynocephalus* Kaup, 1825 (even if originally published as belonging to other genera and if now excluded from this genus). We provide below an annotated list of all these names, presented in chronological order of their publication. The purpose of this list is: (1) to give an overview of all scientific names available in the literature for lizards currently placed in genus *Phrynocephalus*; (2) to trace primary homonyms, objective and current subjective synonyms, and other nomenclatural problems, and to propose solutions to some of these; (3) to trace information on name-bearing types and type localities of all nominal species involved. In order to stabilize definitely the use of several problematic names or of names based on syntypes, we designate and describe below a number of neotypes and lectotypes.

We have included in this list also the published names, which are not available according to the *Code* (*nomina nuda*, names first published as synonyms, quadrinominal names), in order to provide information on the place of these names in synonymies (as was done e. g. by Mertens & Wermuth, 1960, and many others). However, it should be clear that such names have no status in nomenclature and cannot compete for the allocation of a scientific name to a taxon. These unavailable names are written below between quotation marks.

For each name of the list below, whether available or unavailable, we provide the following information:

*Original name.* Name as cited in the original description of the species-group taxon, followed by abbreviated citation of author and year of publication (reference to bibliography), and first page of appearance of the new name in this original publication. With very few exceptions (recognisable in the list), all references were studied in the original. Placement of a scientific name between quotation marks indicates that this name is unavailable under the rules of the current edition of the *Code*. Where relevant, this paragraph also provides information on primary homonyms of the name considered.

*Name-bearing type.* Number of type specimens, collection(s) where they are kept (see list of abbreviations).

tions above) and their collection numbers when known to us. The determination of the type status is based on information contained in the published type catalogues, the original descriptions, revisionary works of subsequent authors and on examinations of the specimens themselves. Syntypes are listed here only if they are still syntypes; in case of a lectotype having been designated among them (including in the present work), this results in the loss of the status of name-bearing types for all other syntypes, and these are not listed in this paragraph. Unfortunately, we have been unable to see the name-bearing types of all nominal species of this genus: some of them are lost, and others kept in museums that we were unable to visit and from which we did not obtain them on loan.

*Type locality.* Where possible, the locality is quoted directly from the original publication, which is indicated by enclosing the locality in quotation marks. A type locality without quotation marks was taken from a secondary source or was translated from the original language. Published restrictions and corrections of type localities are noted, although, so called "restrictions of type localities" not accompanied by formal designations of lectotype or neotype are invalid according to the *Code*. We discuss some such cases below, and propose solutions to the problem raised.

*Current status of specific name.* Current taxonomic status of the species-group name: either valid under the original combination, or currently considered invalid, being either a junior synonym or a junior homonym. For each name we provide at least one recent reference to its use.

*Proposed status of specific name.* This paragraph appears only for the species for which we propose a change in specific or nomenclatural status.

*Comments.* The comments given here for some nominal species are mainly historical and nomenclatural. When necessary, explanations are given here for our nomenclatural decisions, such as lectotype or neotype designations, proposed taxonomic changes, etc.

## Generic taxonomy

The present compilation deals primarily with the species-group names proposed in the genus *Phrynocephalus*. However, it should be noted that the genus itself has been given several names.

The first species in the genus *Phrynocephalus* discovered by zoologists were referred to the catch-all lizard genera *Lacerta* (Pallas, 1771, 1776; Lepechin, 1774; Gmelin, 1789; Pallas, [1814])) and *Agama* (Olivier, 1807; Lichtenstein In Eversmann, 1823). Shortly after, Kaup (1825) erected for them a new genus, *Phrynocephalus*. Fitzinger (1843) proposed three names: *Saccostoma* (for *Ph. mystaceus*) and *Helioscopus* (for *Ph. helioscopus*). Within the latter generic name he erected the new subgenus *Phrynosaurus* to accommodate the species *Ph. scutellatus*.

Eichwald (1831) proposed the new name *Megalochilus* for *Phrynocephalus mystaceus*. It should be noted that *Ph. mystaceus* has a high level of anatomical variability (Ananjeva, "1986" 1987), which together with its unique karyotype (Zeng *et al.*, 1997) has led to its uncertain taxonomic classification. In recent phylogenetic analyses (Pang *et al.*, 2003) based on several tree constructing methods, the position of *P. mystaceus* is uncertain, and further studies will be required to solve its phylogenetic position.

In 1978 Sharma described *Ph. laungwalaensis* from the Rajasthan Desert (India) on the southeastern periphery of the distribution of the genus. Arnold (1992) removed it from *Phrynocephalus* and reallocated it into the monotypic genus *Bufoniceps*. Some authors (Golubev & Sattorov, 1992; Dunayev, 1994, 1996; Golubev & Dunayev, 1997), on the basis of characters of external and cranial morphology, as well as on ethological features, stated that *Phrynocephalus laungwalaensis* is closely related to other species (*arabicus*, *clarkorum*, *euptilopus*, *interscapularis*, *luteoguttatus*, *maculatus*, *mystaceus*, *ornatus* and *sogdianus*). They propose to consider this group as a separate subgenus under the name *Bufoniceps* Arnold, 1992. However, *Ph. mystaceus* is the type species of the genus *Megalochilus* Eichwald, 1831 and in this case *Bufoniceps* should be

treated as a junior synonym. In this work we considered *Bufoniceps* to be a separate genus with one species *B. laungwalaensis* (Sharma, 1978).

Recently, Pang *et al.* (2003) using the DNA sequences from four mitochondrial genes showed that *Phrynocephalus* in China is represented by two major clades: the lowland oviparous species and the live-bearing mountainous species of Qinghai-Xizang. Also, these authors strongly supported the monophyly of the viviparous species. Therefore, here we propose a new subgeneric name to accommodate this group:

### **Subgenus *Oreosaura* subgen. nov.**

**Species typica.** *Phrynocephalus vlangalii* Strauch, 1876.

**Diagnosis.** All members of new subgenus can be distinguished from other species of *Phrynocephalus* by the following combination of characters: (1) fontanel between the frontal and prefrontal bones in their skull (Wang & Macey, 1993); (2) karyotype with  $2n = 48$  (12 large and 12 small pairs of chromosomes) (Zeng *et al.*, 1997); (3) live-bearing mode of reproduction; (4) dark pigment in the mid-line area of belly in adults; (5) considerable reduction of tail-signaling function.

**Included species.** *Phrynocephalus forsythii* Anderson, 1872; *Ph. putjatai* Bedriaga, 1909; *Ph. roborowskii* Bedriaga, "1905" 1906, *Ph. theobaldi* Blyth, 1863; *Ph. vlangalii* Strauch, 1876.

**Derivatio nominis.** The name *Oreosaura* is derived from the Greek words ορον (oros), meaning mountain and σαύρος (lizard), and refers to the mountainous distribution of the new subgenus's constituent species. The gender of new subgenus is feminine.

**Distribution.** Mainly restricted to the Qinghai-Xizang (Tibetan) plateau in China, northern India and Nepal, but *Ph. forsythii* is sympatrically distributed with oviparous *Ph. axillaris* in the south-western Xinjiang Uygur Autonomous Region, China.

Chronological commented list of available and unavailable scientific species-group names for lizards of the genus *Phrynocephalus* Kaup, 1825

#### **1. *helioscopa* Pallas, 1771**

*Original name.* *Lacerta helioscopa* Pallas, 1771: 457.

*Name-bearing type.* Lectotype (designated by Denzer *et al.*, 1997: 324), ZMB 781.

*Type-locality.* "in deserti australioris collibus ardentissimis"; restricted to the "Inderskija Gory, Gebiet des unteren Uralflusses" by Mertens & Müller (1928: 26).

*Current status of specific name.* Valid name, as *Phrynocephalus helioscopus* (Pallas, 1771) and *Phrynocephalus helioscopus helioscopus* (Pallas, 1771) (Ananjeva *et al.*, 1998; Ananjeva *et al.*, 2004; Kuzmin & Semenov, 2006).

*Comments.* In his diary, P.S. Pallas (1771: 406) mentioned *Lacerta helioscopa* in his remarks concerning "Inderskie Gory" [now Inderskije (Inder) Mountains, Atyrau Region, north-western Kazakhstan]. Probably on this basis the type locality was restricted to "Inderskija Gory, Gebiet des unteren Uralflusses" by Mertens & Müller (1928: 26). However this restriction was not accompanied by designation of a lectotype or neotype and is therefore not valid as such.

#### **2. *mystacea* Pallas, 1776**

*Original name.* *Lacerta mystacea* Pallas, 1776: 702.

*Name-bearing type.* Neotype by present designation, ZISP 8735.1, adult male.

*Type-locality.* (1) "in collibus arenosis Naryn" [= Ryn Peski (Ryn Sands), Uralskaya Region, north-western Kazakhstan]; (2) "in deserti Comani sabuletis" [= Prikumskiye Sands (*peski*), north-eastern Caucasus].

Restricted to the "Naryn-Steppe, Norküste des Kaspischen Meers" by Mertens & Müller (1928: 26). Restricted here by neotype designation to Ryn Peski (Ryn Sands), Uralskaya Region, north-western Kazakhstan.

*Current status of specific name.* Valid name, as *Phrynocephalus mystaceus* (Pallas, 1776) and *Phrynocephalus mystaceus mystaceus* (Pallas, 1776) (Ananjeva *et al.*, 1998; Ananjeva *et al.*, 2004; Kuzmin & Semenov, 2006).

*Comments.* Stabilization of the status of this name requires the designation of a neotype from the type locality. The restriction of the latter by Mertens & Müller (1928) was not accompanied by such a designation and is therefore not valid as such. In order to maintain the current use of this name, here we designate the neotype from the region of Naryn (= Ryn) Sands, Russian-Kazakhstan frontier.

### 3. *aurita* Pallas, 1776

*Original name.* *Lacerta aurita* Pallas, 1776: Tab. V, Fig. 1.

*Name-bearing type.* Lectotype, by present designation: the specimen depicted by Pallas (1776) on the Tab. V, Fig. 1.

*Type locality.* Unknown, probably the same as for *Lacerta mystacea* Pallas, 1776.

*Current status of specific name.* Invalid name, objective junior synonym of *Phrynocephalus mystaceus* (Pallas, 1776) and *Phrynocephalus mystaceus mystaceus* (Pallas, 1776) (Mertens & Wermuth, 1960; Wermuth, 1967; Kuzmin & Semenov, 2006).

*Comments.* (1) It is necessary to note that Pallas (1776) in the description of *Lacerta mystacea* referred to the Tab. V, Fig. 1 in the same book. However, this figure was titled as "*Lacerta aurita*". In this case, Pallas becomes as the author of the two names – *Lacerta mystacea* and *Lacerta aurita* respectively. (2) Gmelin (1789) who acted as first reviser between the names *Lacerta mystacea* Pallas, 1776 and *Lacerta aurita* Pallas, 1776, chose to give priority to the name *Lacerta aurita*. (3) However, the name *mystacea* (since Boulenger, 1885) has now been consistently used for more than one century by many authors, and according to the Article 23 of the *Code* should be protected.

### 4. *uralensis* Gmelin, 1789

*Original name.* *Lacerta uralensis* Gmelin, 1789: 1073.

*Name-bearing type.* Lectotype, by present designation: the specimen described (without scientific name) by Lepechin (1774) and depicted there on the Pl. 22, Fig. 1.

*Type locality.* "in deserto Uralensi".

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus helioscopus* (Pallas, 1771) and *Phrynocephalus helioscopus helioscopus* (Pallas, 1771) (Wermuth, 1967; Kuzmin & Semenov, 2006).

### 5. *guttata* Gmelin, 1789

*Original name.* *Lacerta guttata* Gmelin, 1789: 1078.

*Name-bearing type.* Neotype by present designation, ZISP 4910.1, adult male, SVL 51.0 mm, TL 59.3 mm.

*Type locality.* "in deserto Uralensi". Restricted to the "Jaikische Steppen (Gebiet des unteren Uralfusses)" by Mertens & Müller (1928: 26). Restricted here by neotype designation to vicinity of Atyrau (Gurjev), approximately 47° 06' N, 51° 54' E, Atyrau Province, north-western Kazakhstan.

*Current status of specific name.* Valid name, as *Phrynocephalus guttatus* (Gmelin, 1789) and *Phrynocephalus guttatus guttatus* (Gmelin, 1789) (Ananjeva *et al.*, 1998; Ananjeva *et al.*, 2004; Kuzmin & Semenov, 2006).

*Comments.* The restriction of the type locality by Mertens & Müller (1928) was not accompanied by des-

ignation of lectotype or neotype and is therefore not valid as such. In order to maintain the current use of this name, we here designate the neotype.

#### 6. *lobata* Shaw, 1802

*Original name.* *Lacerta lobata* Shaw, 1802: 244; nomen novum pro *Lacerta aurita* Gmelin, 1789.

*Name-bearing type.* Same as for *Lacerta aurita* Gmelin, 1789.

*Type locality.* Same as for *Lacerta aurita* Gmelin, 1789.

*Current status of specific name.* Invalid name, objective junior synonym of *Phrynocephalus mystaceus* (Pallas, 1776) and *Phrynocephalus mystaceus mystaceus* (Pallas, 1776) (Mertens & Wermuth, 1960; Wermuth, 1967).

#### 7. *scutellata* Olivier, 1807

*Original name.* *Agame scutellata* Olivier, 1807: 110, incorrect original spelling.

*Name-bearing type* (Brygoo, 1988). Holotype, MNHN 6947.

*Type locality.* "... au pied de la montagne (nommée Sophia ou Sophissar, en vue d'Ispahan)" [= Mt. Sophia, near Esfahan, Esfahan Province, Iran].

*Current status of specific name.* Valid name, as *Phrynocephalus scutellatus* (Olivier, 1807) (Anderson, 1999).

#### 8. *caudivolvula* Pallas, [1814]

*Original name.* *Lacerta caudivolvula* Pallas, [1814]: 27.

*Name-bearing type.* Neotype, by present designation, ZISP 4910.1, adult male, SVL 51.0 mm, TL 59.3 mm.

*Type locality.* "...ad Irtin, adeoque per omnem Tatariam magnam". Restricted to the "Jaikische Steppen, Gebiet des unteren Ural-Flusses" by Mertens & Wermuth (1960: 83). Restricted here by neotype designation to vicinity of Atyrau (Gurjev), approximately 47° 06' N, 51° 54' E, Atyrau Province, north-western Kazakhstan.

*Current status of specific name.* Invalid name, objective junior synonym of *Phrynocephalus guttatus* (Gmelin, 1789) and *Phrynocephalus guttatus guttatus* (Gmelin, 1789) (Wermuth, 1967; Kuzmin & Semenov, 2006).

*Comments.* (1) Peter Simon Pallas died in 1811 before the publication of his *Zoographia*. This work was printed in 1811-1813 but the text was widely distributed only in 1831. The date of publication of this work has long been a subject of debate. Svetovidov (1976, 1978) provided the most detailed evaluation of the subject. The text for volumes I and II of this work was printed in 1811, while that for volume III was completed in 1814. Because delays in the printing of plates, the work was not actually finished and published in its entirety until 1831. (2) According to Sytin (1997) the equivalent of Pallas's "Irtin" is the Irtysh River, Eastern Kazakhstan and under the term "Tatariam magnam" Pallas recognized territory from the lower Volga river stream to the Aral See area. For this reasons Pallas's name may be applied to the two currently recognized species: *Phrynocephalus guttatus* (Gmelin, 1789) and *Ph. melanurus* (Eichwald, 1831). In this case *caudivolvula* is a first available name and strictly following the Principle of Priority, *Ph. melanurus* should be replaced by its senior synonym. However, such change would cause taxonomical instability because since publication of Semenov *et al.* (1987) the name *Ph. melanurus* was widely accepted in literature. Stabilization of the status of this name requires the designation of a neotype from the type locality. The restriction of the latter by Mertens & Wermuth (1960) was not accompanied by such a designation and is therefore not valid as such. As the original name-bearing type appears to be lost, in order to definitely stabilize the nomenclatural situation, the designation of a neotype of *L. caudivolvula* Pallas, [1814] is necessary. We chose for this the same specimen, which is designated above as neotype of *Lacerta guttata* Gmelin, 1789 so that this two names (*L. caudivolvula*

and *L. guttata*) are now linked by objective synonymy. (3) Denzer *et al.* (1997: 324) mentioned ZMB 787 and 788 as the syntypes of *Lacerta caudivolvula*. However, these specimens are the types (lectotype and paralectotype respectively) of *Agama ocellata* Lichtenstein *In Eversmann*, 1823 (see Golubev, 1991 for discussion).

#### 9. *ocellata* Lichtenstein *In Eversmann*, 1823

*Original name.* *Agama ocellata* Lichtenstein *In Eversmann*, 1823: 143.

*Name-bearing type.* Lectotype (designated by Golubev, 1991: 14), ZMB 787.

*Type locality.* "Kleine Tartarei; Bucharei". Corrected to the central part of the Kyzylkum Desert to the north of Bukhara and to the south of Juz-kuduk, Uzbekistan by Golubev (1991: 14).

*Current status of specific name.* Valid name, as *Phrynocephalus ocellatus* (Lichtenstein *In Eversmann*, 1823) (Golubev, 1991).

*Proposed status of specific name.* Invalid name, subjective senior synonym of *Phrynocephalus reticulatus* Eichwald, 1831 and *Phrynocephalus reticulatus reticulatus* Eichwald, 1831.

*Comments.* On the basis of examination of the type specimens Golubev (1991) stated that this name is the senior synonym for the species hitherto known as *Phrynocephalus reticulatus* Eichwald, 1831. Therefore he placed the junior name in the synonymy of the resurrected *Phrynocephalus ocellatus* (Lichtenstein *In Eversmann*, 1823). However, the name *reticulatus* has now been consistently used for more than one century by many authors, and should be protected.

#### 10. "*interscapularis*" Fitzinger, 1826

*Original name.* "*P[hrynocephalus]. interscapularis*" Fitzinger, 1826: 48.

*Name-bearing type.* None.

*Type locality.* None.

*Proposed status of specific name.* Unavailable name (nomen nudum); subjective junior synonym of *Phrynocephalus interscapularis* Lichtenstein, 1856 and *Phrynocephalus interscapularis interscapularis* Lichtenstein, 1856.

*Comments.* The name "*Phrynocephalus interscapularis*" was first published by Fitzinger (1826: 48) without a diagnosis and was therefore a nomen nudum then. Fitzinger attributes this name to Lichtenstein (as "*Agama interscapularis* Lichtenstein"). However, Lichtenstein apparently never used the name "*Phrynocephalus interscapularis*" before 1856.

This name became available only with the publication by Lichtenstein (1856: 12), who provide the formal description. As for the name "*Phrynocephalus interscapularis*" Fitzinger, 1826, since it has no status in nomenclature, it does not have a name-bearing type.

#### 11. *pallasii* Gray, 1831

*Original name.* *Phrynocephalus Pallasii* Gray, 1831: 59; nomen novum pro *Lacerta caudivolvula* Pallas, [1814].

*Name-bearing type.* Same as for *Lacerta caudivolvula* Pallas, [1814].

*Type locality.* Same as for *Lacerta caudivolvula* Pallas, [1814].

*Proposed status of specific name.* Invalid name, objective junior synonym of *Phrynocephalus guttatus* (Gmelin, 1789) and *Phrynocephalus guttatus guttatus* (Gmelin, 1789).

#### 12. *varius* Eichwald, 1831

*Original name.* *P[hrynocephalus]. varius* Eichwald, 1831: 186.

*Name-bearing type.* Holotype, ZISP 8718.

*Type locality.* "Hab. in Sibiria australi, versus montes Altaicos".

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus helioscopus*

(Pallas, 1771) and *Phrynocephalus helioscopus helioscopus* (Pallas, 1771) (Wermuth, 1967).

*Proposed status of specific name.* Valid name, as *Phrynocephalus helioscopus varius* Eichwald, 1831 **comb. et stat. nov.**

*Comments.* (1) This is a first available name for the population of *Ph. helioscopus* from Eastern Kazakhstan, north-western China and western Mongolia which is currently recognized under the name *Phrynocephalus helioscopus saposhnikovi* Kaščenko, 1909 (Peters *et al.*, 1990; Ananjeva *et al.*, 2004). As the current taxonomic situation in this group is so complicated that no one can seriously speak of "nomenclatural stability" that would have to be "protected" through the nomenclatural invalidation ("suppression") of the name *P. varius* Eichwald, 1831, here we resurrect Eichwald's name for this populations. (2) We suggest that this name may be a synonym of *Ph. nigricans* Eichwald, 1831. In case of confirmation of this synonymy, we hereby act as first revisers by giving priority to the name *Phrynocephalus varius* over *Phrynocephalus nigricans*.

### 13. *reticulatus* Eichwald, 1831

*Original name.* *P[hrynocephalus]. reticulatus* Eichwald, 1831: 186.

*Name-bearing type.* Holotype, ZISP 8720.

*Type locality.* "Hab. ad Oxum, pristinum amnem, in caspii maris litore orientali"; corrected to the Amu-Darja river by Golubev (1991).

*Current status of specific name.* Valid name, as *Phrynocephalus reticulatus* Eichwald, 1831 and *Phrynocephalus reticulatus reticulatus* Eichwald, 1831 (Ananjeva *et al.*, 1998; Ananjeva *et al.*, 2004).

### 14. *melanurus* Eichwald, 1831

*Original name.* *P[hrynocephalus]. melanurus* Eichwald, 1831: 186.

*Name-bearing type.* Neotype (designated by Semenov *et al.*, 1987: 105), ZMMU Re-5611.

*Type locality.* "Sibiria australi, versus montes Altaicos". Restricted to Kyzylkum sands near the Kurchum village left side of the Bukhtarminskoje vodokhranilishe, Eastern Kazakhstan by neotype designation.

*Current status of specific name.* Valid name, as *Phrynocephalus melanurus* Eichwald, 1831 (Ananjeva *et al.*, 1998; Ananjeva *et al.*, 2004; Barts & Wilms, 2003).

*Proposed status of specific name of specific name.* Valid name, as *Phrynocephalus guttatus melanurus* Eichwald, 1831 **comb. nov.**

*Comments.* The question concerning the taxonomic position of *Phrynocephalus* species from the Eastern Kazakhstan (Semirechiye) and adjacent territories of western China is one of the most complicated (for discussion see Semenov *et al.*, 1987; Shenbrot & Semenov, 1987; Golubev, 1989, 1992; Dunayev, 1996). Golubev (1989) proposed to recognize all toad-headed agamas from this territory only as one taxon under the name *Ph. guttatus*. This view is followed in the present paper. As the *Ph. melanurus* is the first available name for this region, here we propose to use the name *Phrynocephalus guttatus melanurus* Eichwald, 1831 for population of *Ph. guttatus* from Eastern Kazakhstan and north-western China (Xinjiang).

### 15. *nigricans* Eichwald, 1831

*Original name.* *P[hrynocephalus]. nigricans* Eichwald, 1831: 186.

*Name-bearing type.* Lectotype by present designation, ZISP 8719.1, adult male (in poor condition, measurement was not taken on this specimen).

*Type locality.* "Sibiria australi, versus montes Altaicos".

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus helioscopus varius* Eichwald, 1831.

*Comments.* We suggest that this name may be a synonym of *Ph. varius* Eichwald, 1831. In case of confirmation of this synonymy, we hereby act as first revisers by affording priority to the name *Phrynocephalus varius* over *Phrynocephalus nigricans*.

16. *olivieri* Duméril et Bibron, 1837

*Original name.* *Phrynocephalus Olivieri* Duméril et Bibron, 1837: 517.

*Name-bearing type.* Same as for *Agama scutellata* Olivier, 1807.

*Type locality.* Same as for *Agama scutellata* Olivier, 1807.

*Current status of specific name.* Invalid name, objective junior synonym of *Phrynocephalus scutellatus* (Olivier, 1807) (Moquard, 1910a).

17. “*gibba*” Eichwald, 1841

*Original name.* “*Lacerta gibba*” Eichwald, 1841: 108.

*Name-bearing type.* None.

*Type locality.* None.

*Proposed status of specific name.* Unavailable name (published as a synonym); subjective junior synonym of *Phrynocephalus helioscopus* (Pallas, 1771) and of *Phrynocephalus helioscopus* (Pallas, 1771).

*Comments.* We know of two mentions of the name *Lacerta gibba* in the scientific literature: in Eichwald (1841: 108) and in Gray (1845: 260). In both works the name was published as a synonym of *Phrynocephalus helioscopus* and credited to Samuel Gottlieb Gmelin. However, the latter never published this name, which has therefore no status in nomenclature. We propose to place it in the synonymy of *Phrynocephalus helioscopus*.

18. *ticketii* Gray, 1845

*Original name.* *Phrynocephalus Ticketii* Gray, 1845: 260.

*Name-bearing type.* Holotype, BMNH XXIV.70a.

*Type locality.* “Afghanistan” [sic!].

*Current status of specific name* (Boulenger, 1885). Invalid name, subjective junior synonym of *Phrynocephalus scutellatus* (Olivier, 1807).

19. *interscapularis* Lichtenstein, 1856

*Original name.* *Phrynocephalus interscapularis* Lichtenstein, 1856: 12.

*Name-bearing type.* Lectotype, by present designation, ZMB 796, adult male, SVL 37.8 mm, TL 41.2 mm.

*Type locality.* “Bucharei” [= Uzbekistan].

*Current status of specific name.* Valid name, as *Phrynocephalus interscapularis* Lichtenstein, 1856 and *Phrynocephalus interscapularis interscapularis* Lichtenstein, 1856 (Ananjeva *et al.*, 1998; Anderson, 1999; Ananjeva *et al.*, 2004).

*Comments.* The authorship of all names first proposed in the *Nomenclator Reptilium et Amphibiorum Musei Zoologici Berolinensis* remain problematic. Many authors have attributed authorship to Lichtenstein alone. Other authors (e.g. Harris & Kluge, 1984) have assigned names from the *Nomenclator* to Lichtenstein and von Martens. Peters (1882), however, referred to Weinland and von Martens as the authors of the publication. Bossuyt & Dubois (2001) cited three authors: Lichtenstein, Weinland and von Martens. Here we follow the recommendation of Aaron Bauer (pers. comm.) and regard Lichtenstein as a sole author of *Nomenclator*.

20. *persicus* De Filippi, 1863

*Original name.* *Phrynocephalus persicus* De Filippi, 1863: 387.

*Name-bearing type* (Capoccaccia, 1961; Elter, 1982 "1981"; Tiedemann *et al.*, 1994). Syntypes, MSNG CE 9597 (2 specimens); MZUT R392(840), R396(358); NMW 24821; ZISP 8844.

*Type locality.* "campagne deserte dall'Armenia fino a Teheran". Syntypes are from (1) Armenia; (2) Persia.

*Current status of specific name.* Valid name, as *Phrynocephalus persicus* De Filippi, 1863 (Anderson, 1999).

21. ***theobaldi*** Blyth, 1863

*Original name.* *Phrynocephalus theobaldi* Blyth, 1863: 90.

*Name-bearing type* (Das *et al.*, 1998). Syntypes, ZSI 5391, 5392, 5393.

*Type locality.* “along lake Chomoriri” [= Tso Morari, in Ladakh, Jammu and Kashmir State, northern India].

*Current status of specific name.* Valid name, as *Phrynocephalus theobaldi* Blyth, 1863 (Zhao *et al.*, 1999).

22. ***stoliczai*** Steindachner, 1867

*Original name.* *Phrynocephalus stoliczai* Steindachner, 1867: 23.

*Name-bearing type* (Tiedemann *et al.*, 1994). Syntypes, NMW 23482 (18 specimens); ZISP 5022.

*Type locality.* (1) “Tshomoriri” [= Chomoriri or Tso Morari lake, in Ladakh, Jammu and Kashmir State, northern India]; (2) “Indus-Tal, bei Nirda Rongo, nördlich vom Kloster Hanle”.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus theobaldi* Blyth, 1863 (Wermuth, 1967).

23. ***maculatus*** Anderson, 1872

*Original name.* *Phrynocephalus maculatus* J. Anderson, 1872: 389, fig. 6.

*Name-bearing type* (Das *et al.*, 1998). Holotype, ZSI 4825.

*Type locality.* “Awada, Shiraz, Persia”; corrected to Abadeh [31°10' N, 52°37' E; Fars Province, Iran], north of Shiraz, by Blanford (1876).

*Current status of specific name.* Valid name, as *Phrynocephalus maculatus* Anderson, 1872 and *Phrynocephalus maculatus maculatus* Anderson, 1872 (Leviton *et al.*, 1992; Anderson, 1999).

24. ***forsythii*** Anderson, 1872

*Original name.* *Phrynocephalus forsythii* J. Anderson, 1872: 390, fig. 7.

*Name-bearing type* (Peters, 1984; Tiedemann *et al.*, 1994; Das *et al.*, 1998). Syntypes, BMNH 1946.8.28.40; NMW 24809 and ZSI 5167, 5168, 5181.

*Type locality.* “Yarkand” [= Shache, 38°25' N, 77°14' E, southern Xinjiang Uygur Autonomous Region, western China]. Syntypes from (1) Yarkand and Sinkol; (2) Yarkand.

*Current status of specific name.* Valid name, as *Phrynocephalus forsythii* Anderson, 1872 (Zhao *et al.*, 1999).

25. ***axillaris*** Blanford, 1875

*Original name.* *Phrynocephalus axillaris* Blanford, 1875: 201.

*Name-bearing type* (Das *et al.*, 1998). Syntypes, ZSI 3612-18, 3620, 3622-23, 3625-38, 3832-34, 4839-40.

*Type locality.* The type locality was given as “Eastern Turkestán around Yárkand” [= Shache, 38°25' N, 77°14' E, southern Xinjiang Uygur Autonomous Region, western China] in Blanford (1875) and “Eastern Turkestán, in the plains” in Blanford (1876). Syntypes from (1) Kokrohat, near Yarkand; (2) Yarkand; (3) Yangihissar, E. Turkestan; (4) Kizil; (5) South of Yarkand.

*Current status of specific name.* Valid name, as *Phrynocephalus axillaris* Blanford, 1875 (Zhao & Adler, 1993; Zhao *et al.*, 1999).

26. ***przewalskii*** Strauch, 1876

*Original name.* *Phrynocephalus Przewalskii* Strauch, 1876: 10.

*Name-bearing type.* Holotype, ZISP 3928.

*Type locality.* “deserto Alaschanico” [= Tengger Desert, Nei Mongol (Inner Mongolia) Autonomous Region, China]. According to the route of Przewalsky's First Expedition type locality of this species should be corrected to the eastern part of Tengger Desert (west from 106° E), south-western part of Nei Mongol (Inner Mongolia) Autonomous Region, China.

*Current status of specific name.* Valid name, as *Phrynocephalus przewalskii* Strauch, 1876 (Zhao, 1997; Zhao *et al.*, 1999; Wang & Fu, 2004).

*Comments.* (1) Tsarevsky (1927a: 23) who acted as first reviser between the names *Phrynocephalus Przewalskii* Strauch, 1876 and *Phrynocephalus affinis* Strauch, 1876, chose to give priority to the name *Phrynocephalus przewalskii*. (2) Wang & Fu (2004: 203) who acted as first revisers between the names *Phrynocephalus przewalskii* Strauch, 1876, *Phrynocephalus frontalis* Strauch, 1876 and *Phrynocephalus versicolor* Strauch, 1876, chose to give priority to the name *Phrynocephalus przewalskii*.

## 27. *affinis* Strauch, 1876

*Original name.* *Phrynocephalus affinis* Strauch, 1876: 13.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 42), ZISP 3922.

*Type locality* (restricted by lectotype designation). “Ordos dicta” [= Ordos Desert, Nei Mongol (Inner Mongolia) Autonomous Region, China].

*Current status of specific name of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876 (Tsarevsky, 1927a; Peters, 1984; K. Zhao, 1997; Zhao *et al.*, 1999). Valid name, as *Phrynocephalus affinis* Strauch, 1876 (Barts & Wilms, 2003).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

*Comments.* Tsarevsky (1927a: 23) who acted as first reviser between the names *Phrynocephalus Przewalskii* Strauch, 1876 and *Phrynocephalus affinis* Strauch, 1876, chose to give priority to the name *Phrynocephalus przewalskii*.

## 28. *frontalis* Strauch, 1876

*Original name.* *Phrynocephalus frontalis* Strauch, 1876: 15.

*Name-bearing type.* Holotype, ZISP 3920.

*Type locality.* “Ordos dicta” [= Ordos Desert, Nei Mongol (Inner Mongolia) Autonomous Region, China].

*Current status of specific name.* Valid name, as *Phrynocephalus frontalis* Strauch, 1876 (Zhao, 1997; Zhao *et al.*, 1999; Barts & Wilms, 2003). Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876 (Wang & Fu, 2004).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

*Comments.* Wang & Fu (2004: 203) who acted as first revisers between the names *Phrynocephalus przewalskii* Strauch, 1876, *Phrynocephalus frontalis* Strauch, 1876 and *Phrynocephalus versicolor* Strauch, 1876, chose to give priority to the name *Phrynocephalus przewalskii*.

## 29. *versicolor* Strauch, 1876

*Original name.* *Phrynocephalus versicolor* Strauch, 1876: 18.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 36), ZISP 3929.1.

*Type locality.* “deserto Alaschanico” [= Tengger Desert, Nei Mongol (Inner Mongolia) Autonomous Region, China]. According to the route of Przewalsky's First Expedition type locality of this species should be corrected to the eastern part of Tengger Desert (west from 106° E), south-western part of Nei Mongol

(Inner Mongolia) Autonomous Region, China.

*Current status of specific name.* Valid name, as *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876 (Ananjeva *et al.*, 1997; Zhao *et al.*, 1999; Pang *et al.*, 2003; Wang & Fu, 2004).

*Comments.* Wang & Fu (2004: 203) who acted as first revisers between the names *Phrynocephalus przewalskii* Strauch, 1876, *Phrynocephalus frontalis* Strauch, 1876 and *Phrynocephalus versicolor* Strauch, 1876, chose to give priority to the name *Phrynocephalus przewalskii*.

### 30. *vlangalii* Strauch, 1876

*Original name.* *Phrynocephalus Vlangalii* Strauch, 1876: 20.

*Name-bearing type.* Holotype, ZISP 3946.

*Type locality.* “Kuku-noor dictum” [= Qinghai Hu, Qinghai Province, China].

*Current status of specific name.* Valid name, as *Phrynocephalus vlangalii* Strauch, 1876 and *Phrynocephalus vlangalii vlangalii* Strauch, 1876 (Zhao & Adler, 1993; Zhao *et al.*, 1999; Pang *et al.*, 2003).

### 31. *ornatus* Boulenger, 1887

*Original name.* *Phrynocephalus ornatus* Boulenger, 1887: 496.

*Name-bearing type.* Lectotype (designated by Anderson & Leviton, 1967: 231), BMNH 1946.8.28.20 [ex BMNH 86.9.21.49].

*Type locality.* “between Nushki and Helmand, Baluchistan”.

*Current status of specific name.* Valid name, as *Phrynocephalus ornatus* Boulenger, 1887 and *Phrynocephalus ornatus ornatus* Boulenger, 1887 (Anderson, 1999).

### 32. *luteoguttatus* Boulenger, 1887

*Original name.* *Phrynocephalus luteoguttatus* Boulenger, 1887: 497.

*Name-bearing type.* Syntypes, BMNH 1946.8.28.44-49 [ex BMNH 86.9.21.62-64] and BMNH 1946.8.28.36-38 [ex BMNH 86.9.21.69-71]; ZISP 7363 [ex BMNH cnu].

*Type locality.* “between Nushki and Helmand; Helmand, Afghanistan”.

*Current status of specific name.* Valid name, as *Phrynocephalus luteoguttatus* Boulenger, 1887 (Anderson, 1999).

### 33. “*roborowskii*” Przewalski, 1888

*Original name.* “*Phrynocephalus roborowskii*” Przewalski, 1888: 165, 223, 298, 399, 420.

*Name-bearing type.* None.

*Type locality.* None.

*Proposed status of specific name.* Unavailable name (nomen nudum); subjective junior synonym of *Phrynocephalus roborowskii* Bedriaga, “1905” 1906.

*Comments.* The name “*Phrynocephalus roborowskii*” was first published by Przewalski (1888: 165, 223, 298, 399, and 420) without a diagnosis and was therefore a nomen nudum then. This name became available only with the publication by Bedriaga (“1905” 1906a: 172) who provided the formal description. As for the name “*Phrynocephalus roborowskii*” Przewalski, 1888, since it has no status in nomenclature, it does not have a name-bearing type.

### 34. *raddei* Boettger, 1888

*Original name.* *Phrynocephalus Raddei* Boettger, 1888: 260, 262.

*Name-bearing type.* Lectotype (designated by Mertens, 1967: 63), SMF 10247 (Boettger’s number 4369a).

*Type locality.* “Perewalnaja an der transcaspiischen Bahn” [= Perevalnaja railroad station, southwestern Turkmenistan].

*Current status of specific name.* Valid name, as *Phrynocephalus raddei* (Boettger, 1889) (Ananjeva *et al.*, 1998; Ananjeva *et al.*, 2004).

35. ***horvathi*** Méhely, 1894

*Original name.* *Phrynocephalus helioscopus* var. *Horváthi* Méhely, 1894: 79.

*Name-bearing type.* Neotype, by present designation, ZISP 5544.1, adult male, SVL 45.9 mm, TL 59.8 mm.

*Type locality.* “Aralich, am Fuße des Ararat” [= Aralik village, 39°52' N, 44°31' E, Idgir Province, Turkey].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus persicus* De Filippi, 1863 (Wermuth, 1967; Anderson, 1999).

*Comments.* As the original name-bearing type appears to be lost, final stabilization of the status of this name requires the description of a neotype from the Aralik.

36. ***arabicus*** Anderson, 1894

*Original name.* *Phrynocephalus arabicus* J. Anderson, 1894: 377.

*Name-bearing type* (Anderson, 1999). Syntypes, BMNH 1946.8.28.33 [*ex* BMNH 97.3.11.51] and BMNH 1946.8.28.34 [*ex* BMNH 97.3.11.52].

*Type locality.* "plateau of the Hadramut" [= Hadramawt, southwestern Arabia].

*Current status of specific name.* Valid name, as *Phrynocephalus arabicus* Anderson, 1894 (Anderson, 1999).

37. ***spiniventris*** Nikolsky, 1896

*Original name.* *Phrynocephalus spiniventris* Nikolsky, 1896: 370.

*Name-bearing type.* Holotype, ZISP 8780.

*Type locality.* “Persia orientali” [= Eastern Iran] in the original description. “Sistan, eastern Iran” according to the ZISP catalogues.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus maculatus* Anderson, 1872 and *Phrynocephalus maculatus maculatus* Anderson, 1872 (Anderson, 1999).

38. ***euptilopus*** Alcock et Finn, “1896” 1897

*Original name.* *Phrynocephalus euptilopus* Alcock et Finn, “1896” 1897: 556.

*Name-bearing type* (Das *et al.*, 1998). Syntypes, BMNH 1946.8.28.39 [*ex* 96.12.12.7]; ZSI 14070, 14072; MCZ R-7227 [*ex* ZSI 14074].

*Type locality.* "near Darband, elevation 3000 feet", [Balochistan Province, northwestern Pakistan].

*Current status of specific name:* Valid name, as *Phrynocephalus euptilopus* Alcock et Finn, “1896” 1897 (Khan, 1999; Khan, 2004).

39. ***rossikowi*** Nikolsky, 1899

*Original name.* *Phrynocephalus rossikowi* Nikolsky, 1899a: 286.

*Name-bearing type.* Holotype, ZISP 9112.

*Type locality.* “montibus Chen-tau in deserto Kisil-kum prope ad fl. Amu-darja” [= Khen-Tau Mountains near Nukus, Karakalpak Autonomous Region, Turkmenistan].

*Current status of specific name.* Valid name, as *Phrynocephalus rossikowi* Nikolsky, 1899 (Ananjeva *et al.*, 1998; Ananjeva *et al.*, 2004).

40. *strauchi* Nikolsky, 1899

*Original name.* *Phrynocephalus strauchi* Nikolsky, 1899b: 21.

*Name-bearing type.* Lectotype (designated by Dunayev, 1995: 88), ZMMU Re-2116.

*Type locality* (restricted by lectotype designation). Khodzhent, 40°17' N, 69°37' E, northern Tajikistan.

*Current status of specific name.* Valid name, as *Phrynocephalus strauchi* Nikolsky, 1899 (Sattorov, 1981b; Ananjeva et al., 1998; Ananjeva et al., 2004).

41. *nikolskii* Bedriaga In Nikolsky, 1905

*Original name.* *Phrynocephalus nikolskii* Bedriaga In Nikolsky, 1905: 463.

*Name-bearing type.* Lectotype by present designation, ZISP 5231.1, adult male, SVL 55.0 mm, TL 68.0 mm.

*Type locality.* "Kizil-Kumy" [= Kyzyl-Kum Desert, Uzbekistan].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus reticulatus* Eichwald, 1831 and *Phrynocephalus reticulatus reticulatus* Eichwald, 1831 (Tsarevsky, 1926).

*Comments.* (1) The original proposal of *Phrynocephalus nikolskii* was provided in the Nikolsky's book, published in 1905, and a full, formal description, was published later (Bedriaga, "1905" 1906b). (2) Nikolsky (1915: 208) who acted as first reviser between the names *Phrynocephalus nikolskii* Bedriaga In Nikolsky, 1905 and *Phrynocephalus boulengeri* Bedriaga In Nikolsky, 1905, chose to give priority to the name *Phrynocephalus nikolskii*.

42. *boulengeri* Bedriaga In Nikolsky, 1905

*Original name.* *Phrynocephalus boulengeri* Bedriaga In Nikolsky, 1905: 466.

*Name-bearing type.* Lectotype by present designation, ZISP 7330.1, adult male, SVL 52.5 mm, TL 68.2 mm.

*Type locality.* "Karshi desert, SE from Bukhara", southern Uzbekistan.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus reticulatus* Eichwald, 1831 and *Phrynocephalus reticulatus reticulatus* Eichwald, 1831 (Tsarevsky, 1926).

*Comments.* (1) The original proposal of *Phrynocephalus nikolskii* was provided in the Nikolsky's book, published in 1905, and a full, formal description, was published later (Bedriaga, "1905" 1906b). (2) Nikolsky (1915: 208) who acted as first reviser between the names *Phrynocephalus nikolskii* Bedriaga In Nikolsky, 1905 and *Phrynocephalus boulengeri* Bedriaga In Nikolsky, 1905, chose to give priority to the name *Phrynocephalus nikolskii*.

43. *boettgeri* Bedriaga In Nikolsky, 1905

*Original name.* *Phrynocephalus raddei* var. *boettgeri* Bedriaga In Nikolsky, 1905: 468.

*Name-bearing type.* Lectotype by present designation, ZISP 6117.1, adult female, SVL 53.5 mm, TL 69.3 mm.

*Type locality.* "Schirabad, Buchara orient." [= Sherabad, approximately 37°42' N, 67°04' E, southern Uzbekistan].

*Current status of specific name.* Valid name, as *Phrynocephalus raddei boettgeri* Bedriaga In Nikolsky, 1905 (Ananjeva et al., 2004). Invalid name, subjective junior synonym of *Phrynocephalus raddei* (Boettger, 1889) (Lichnova, 1992).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus raddei* (Boettger, 1889).

*Comments.* The original proposal of *Phrynocephalus raddei* var. *boettgeri* was provided in the Nikolsky's book, published in 1905, and a full, formal description, was published later (Bedriaga, "1905" 1906b).

44. *alpherakii* Bedriaga *In* Nikolsky, 1905

*Original name.* *Phrynocephalus alpherakii* Bedriaga *In* Nikolsky, 1905: 470.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 29), ZISP 10038.3.

*Type locality* (restricted by lectotype designation). Chorgos river [= Korgas river, tributary of the upper Ili River, western Xinjiang Uygur Autonomous Region), China.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus* (Gmelin, 1789) (Zhao, 1997; Zhao *et al.*, 1999). Name with uncertain status (Zhao & Adler, 1993). Valid name, as *Phrynocephalus guttatus alpherakii* Bedriaga *In* Nikolsky, 1905 (Golubev, 1992; Szczerbak, 2003).

*Proposed status of specific name.* Valid name, as *Phrynocephalus guttatus alpherakii* Bedriaga *In* Nikolsky, 1905.

*Comments.* (1) The original proposal of *Phrynocephalus alpherakii* was provided in the Nikolsky's book, published in 1905, and a full, formal description, was published later (Bedriaga, "1905" 1906b). (2) Shenbrot & Semenov (1987: 271) who acted as first revisers between the names *Phrynocephalus alpherakii* Bedriaga *In* Nikolsky, 1905, *Phrynocephalus suschkini* Bedriaga *In* Nikolsky, 1905, and *Phrynocephalus kuschakewitschi* Bedriaga *In* Nikolsky, 1905, chose to give priority to the name *Phrynocephalus kuschakewitschi*.

45. *suschkini* Bedriaga *In* Nikolsky, 1905

*Original name.* *Phrynocephalus suschkini* Bedriaga *In* Nikolsky, 1905: 472.

*Name-bearing type.* Holotype, ZISP 9180.

*Type locality.* "rechten Ufer des unteren Turgaï, der in den nördlich vom Aralsee liegenden Tschaklar-Tepis mündet" [= vicinity of the Chalkar Teniz Lake, Turgai Depression, central Kazakhstan].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus kuschakewitschi* Bedriaga *In* Nikolsky, 1905 (Shenbrot & Semenov, 1987).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus guttatus* (Gmelin, 1789).

*Comments.* (1) The original proposal of *Phrynocephalus suschkini* was provided in the Nikolsky's book, published in 1905, and a full, formal description, was published later (Bedriaga, "1905" 1906b). (2) Shenbrot & Semenov (1987: 271) who acted as first revisers between the names *Phrynocephalus alpherakii* Bedriaga *In* Nikolsky, 1905, *Phrynocephalus suschkini* Bedriaga *In* Nikolsky, 1905, and *Phrynocephalus kuschakewitschi* Bedriaga *In* Nikolsky, 1905, chose to give priority to the name *Phrynocephalus kuschakewitschi*.

46. *incerta* Bedriaga *In* Nikolsky, 1905

*Original name.* *Phrynocephalus caudivolvulus* var. *incerta* Bedriaga *In* Nikolsky, 1905: 475.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 28), ZISP 6751.1.

*Type locality.* "Kreis Wernoje" [= vicinity of Almaty city, approximately 43°17' N, 76°55' E, Kazakhstan].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus kuschakewitschi* Bedriaga *In* Nikolsky, 1905 (Shenbrot & Semenov, 1987).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

*Comments.* (1) The original proposal of *Phrynocephalus caudivolvulus* var. *incerta* was provided in the Nikolsky's book, published in 1905, and a full, formal description, was published later (Bedriaga, "1905" 1906b). (2) Peters (1984: 27) who acted as first revisers between the names *Phrynocephalus caudivolvulus* var. *incerta* Bedriaga *In* Nikolsky, 1905 and *Phrynocephalus kuschakewitschi* Bedriaga *In* Nikolsky, 1905, chose to give priority to the name *Phrynocephalus kuschakewitschi*.

47. *kuschakewitschi* Bedriaga *In* Nikolsky, 1905

Original name. *Phrynocephalus kuschakewitschi* Bedriaga In Nikolsky, 1905: 476.

Name-bearing type. Lectotype (designated by Peters, 1984: 27), ZISP 6839.1.

Type locality (restricted by lectotype designation): “Sergiopolsky okrug” [= now Ajaguz, approximately 47°55' N, 80°23' E, Semipalatinsk Region, Kazakhstan].

*Current status of specific name.* Valid name, as *Phrynocephalus guttatus kuschakewitschi* Bedriaga In Nikolsky, 1905 (Shenbrot & Semenov, 1987; Ananjeva *et al.*, 2004).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

*Comments.* (1) The original proposal of *Phrynocephalus kuschakewitschi* was provided in the Nikolsky’s book, published in 1905, and a full, formal description, was published later (Bedriaga, “1905” 1906b). (2) Peters (1984: 27) who acted as first revisers between the names *Phrynocephalus caudivolvulus* var. *incerta* Bedriaga In Nikolsky, 1905 and *Phrynocephalus kuschakewitschi* Bedriaga In Nikolsky, 1905, chose to give priority to the name *Phrynocephalus kuschakewitschi*.

#### 48. *koslowi* Bedriaga, “1905” 1906

*Original name.* *Phrynocephalus koslowi* Bedriaga, “1905” 1906a: 162.

*Name-bearing type.* Holotype, ZISP 10059.

*Type locality.* “Lük-Tschun (Tjan-Schan)” [= Lukchun or Lüqün, approximately 42°43' N, 89°41' E, Xinjiang Uygur Autonomous Region, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus axillaris* Blanford, 1875 (Peters, 1984). Valid name, as *Phrynocephalus koslowi* Bedriaga, “1905” 1906 (Zhao *et al.*, 1999).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus axillaris* Blanford, 1875.

#### 49. “*pewzowi*” Bedriaga, “1905” 1906

*Original name.* “*Phrynocephalus pewzowi*” Bedriaga, “1905” 1906a: 167.

*Name-bearing type.* None.

*Type locality.* None.

*Proposed status of specific name.* Unavailable name (nomen nudum); subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

*Comments.* The name “*Phrynocephalus pewzowi*” was first published by Bedriaga (“1905” 1906a: 167) without a diagnosis and was therefore a nomen nudum then. This name became available only with the later Bedriaga’s publication (1907: 139, 173) in which he provided the formal description. As for the name “*Phrynocephalus pewzowi*” Bediraga, “1905” 1906, since it has no status in nomenclature, it does not have a name-bearing type.

#### 50. “*salenskii*” Bedriaga, “1905” 1906

*Original name.* “*Phrynocephalus salenskii*” Bedriaga, “1905” 1906a: 167.

*Name-bearing type.* None.

*Type locality.* None.

*Proposed status of specific name.* Unavailable name (nomen nudum); subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

*Comments.* The name “*Phrynocephalus salenskii*” was first published by Bedriaga (“1905” 1906a: 167) without a diagnosis and was therefore a nomen nudum then. This name became available only with the later Bedriaga’s publication (1907: 141, 213) in which he provided the formal description. As for the name “*Phrynocephalus salenskii*” Bediraga, “1905” 1906, since it has no status in nomenclature, it does not have a

name-bearing type.

51. “*steindachneri*” Bedriaga, “1905” 1906

*Original name.* “*Phrynocephalus steindachneri*” Bedriaga, “1905” 1906a: 167.

*Name-bearing type.* None.

*Type locality.* None.

*Proposed status of specific name.* Unavailable name (nomen nudum); subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

*Comments.* The name “*Phrynocephalus steindachneri*” was first published by Bedriaga (“1905” 1906a: 167) without a diagnosis and was therefore a nomen nudum then. This name became available only with the later Bedriaga’s publication (1907: 140) in which he provided the formal description. As for the name “*Phrynocephalus steindachneri*” Bediraga, “1905” 1906, since it has no status in nomenclature, it does not have a name-bearing type.

52. “*haeckeli*” Bedriaga, “1905” 1906

*Original name.* “*Phrynocephalus haeckeli*” Bedriaga, “1905” 1906a: 167.

*Name-bearing type.* None.

*Type locality.* None.

*Proposed status of specific name.* Unavailable name (nomen nudum); subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

*Comments.* The name “*Phrynocephalus haeckeli*” was first published by Bedriaga (“1905” 1906a: 167) without a diagnosis and was therefore a nomen nudum then. This name became available only with the later Bedriaga’s publication (1907: 237) in which he provided the formal description. As for the name “*Phrynocephalus haeckeli*” Bediraga, “1905” 1906, since it has no status in nomenclature, it does not have a name-bearing type.

53. “*isseli*” Bedriaga, “1905” 1906

*Original name.* “*Phrynocephalus isseli*” Bedriaga, “1905” 1906a: 167.

*Name-bearing type.* None.

*Type locality.* None.

*Proposed status of specific name.* Unavailable name (nomen nudum); subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

*Comments.* The name “*Phrynocephalus isseli*” was first published by Bedriaga (“1905” 1906a: 167) without a diagnosis and was therefore a nomen nudum then. This name became available only with the later Bedriaga’s publication (1907: 229) in which he provided the formal description. As for the name “*Phrynocephalus isseli*” Bediraga, “1905” 1906, since it has no status in nomenclature, it does not have a name-bearing type.

54. *guentheri* Bedriaga, “1905” 1906

*Original name.* *Phrynocephalus guentheri* Bedriaga, “1905” 1906a: 168.

*Name-bearing type.* Holotype, ZISP 4758.

*Type locality.* “vom Edsin-gol aus der zentralen Gobi” [= Ruo Shui, Nei Mongol (Inner Mongolia) Autonomous Region, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876 (Semenov & Shenbrot, 1989). Valid name, as *Phrynocephalus guentheri* Bedriaga, “1905” 1906 (Zhao & Adler, 1993).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus versicolor*

Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876

55. *idae* Bedriaga, "1905" 1906

*Original name.* *Phrynocephalus axillaris* var. *idae* Bedriaga, "1905" 1906a: 168.

*Name-bearing type.* Lectotype by present designation, ZISP 10063.1, adult male, SVL 62.5 mm, TL 70.0 mm.

*Type locality* (restricted by lectotype designation). "Nan-schan", Xinjiang Uygur Autonomous Region, China.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus axillaris* Blanford, 1875 (Zhao & Adler, 1993; Zhao *et al.*, 1999).

*Comments.* In the original description of this form Bedriaga ("1905" 1906a) did not mentioned a type specimens. In his later work (Bedriaga, 1907) he provided a list of specimens and figured two of them (ZISP 10063 [Bedriaga incorrect cited number as 10083], juvenile and adult male). Latest specimen here designated as a lectotype of *Phrynocephalus axillaris* var. *idae* Bedriaga, "1905" 1906.

56. *murielis* Bedriaga, "1905" 1906

*Original name.* *Phrynocephalus axillaris* var. *murielis* Bedriaga, "1905" 1906a: 168.

*Name-bearing type.* Lectotype by present designation, ZISP 8164, adult male, SVL 56.0 mm, TL 91.5 mm.

*Type locality* (restricted by lectotype designation). "Lükschun" [= Lukchun or Lükqün, approximately 42°43' N, 89°41' E, Xinjiang Uygur Autonomous Region, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus axillaris* Blanford, 1875 (Zhao & Adler, 1993; Zhao *et al.*, 1999).

*Comments.* In the original description of this form Bedriaga ("1905" 1906a) did not mentioned a type specimens. In his later work (Bedriaga, 1907) he provided a list of specimens and figured two adult males (ZISP 8165 and 10045).

57. *ericae* Bedriaga, "1905" 1906

*Original name.* *Phrynocephalus axillaris* var. *ericae* Bedriaga, "1905" 1906a: 168.

*Name-bearing type.* Lectotype by present designation, ZISP 10060.1, adult male, SVL 55.7 mm, TL 83.2 mm.

*Type locality* (restricted by lectotype designation). "Lükschun" [= Lukchun or Lükqün, approximately 42°43' N, 89°41' E, Xinjiang Uygur Autonomous Region, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus axillaris* Blanford, 1875 (Zhao & Adler, 1993; Zhao *et al.*, 1999).

*Comments.*(1). In the original description of this form Bedriaga ("1905" 1906a) did not mentioned the type specimens. In his later work (Bedriaga, 1907) he provided a list of specimens and figured two of them (ZISP 10060, juvenile and adult males). Latest specimen here designated as a lectotype of *Phrynocephalus axillaris* var. *ericae* Bedriaga, "1905" 1906. (2). We suggest that this name may be a synonym of *Phrynocephalus koslovi* Bedriada, "1905" 1906 and *Phrynocephalus axillaris* var. *murielis* Bedriaga "1905" 1906. In case of confirmation of this synonymy, we hereby act as first revisers by giving priority to the name *Phrynocephalus koslovi* over *Ph. axillaris* var. *murielis* Bedriaga "1905" 1906 and *Ph. axillaris* var. *ericae* Bedriaga "1905" 1906. (3). Between the names *Phrynocephalus axillaris* var. *murielis* and *Phrynocephalus axillaris* var. *ericae* Bedriaga "1905" 1906 we hereby act as first revisers by giving priority to the name *Phrynocephalus axillaris* var. *murielis* over *Phrynocephalus axillaris* var. *ericae* Bedriaga "1905" 1906.

58. "doriai" Bedriaga, "1905" 1906

*Original name.* “*Phrynocephalus versicolor* var. *doriai*” Bedriaga, “1905” 1906a: 171.

*Name-bearing type.* None.

*Type locality.* None.

*Proposed status of specific name.* Unavailable name (nomen nudum); subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876.

*Comments.* The name “*Phrynocephalus versicolor* var. *doriai*” was first published by Bedriaga (“1905” 1906a: 171) without a diagnosis and was therefore a nomen nudum then. This name became available only with the later Bedriaga’s publication (1907: 332) in which he provided the formal description. As for the name “*Phrynocephalus versicolor* var. *doriai*” Bediraga, “1905” 1906, since it has no status in nomenclature, it does not have a name-bearing type.

#### 59. *roborowskii* Bedriaga, “1905” 1906

*Original name.* *Phrynocephalus vlangalii* var. *roborowskii* Bedriaga, “1905” 1906a: 172.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 46), ZISP 7060.

*Type locality* (restricted by lectotype designation). “Provinz Zaidam” [= Qaidam Basin, Qinghai Province, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876 and *Phrynocephalus vlangalii* Strauch, 1876 (Zhao *et al.*, 1999). Valid name, as *Phrynocephalus roborowskii* Bedriaga, “1905” 1906 (Arnold, 1999; Barts & Wilms, 2003).

*Proposed status of specific name.* Valid name, as *Phrynocephalus roborowskii* Bedriaga, “1905” 1906.

#### 60. *nanschanica* Bedriaga, “1905” 1906

*Original name.* *Phrynocephalus vlangalii* var. *nanschanica* Bedriaga, “1905” 1906a: 172.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 44), ZISP 7081.1.

*Type locality* (restricted by lectotype designation). “Nan-shan-Gebirge” [= Nanshan mountains, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876 and *Phrynocephalus vlangalii* Strauch, 1876 (Peters, 1984; Zhao *et al.*, 1999).

#### 61. “*geckoides*” Bedriaga, “1905” 1906

*Original name.* “*Phrynocephalus vlangalii* var. *geckoides*” Bedriaga, “1905” 1906a: 172.

*Name-bearing type.* None.

*Type locality.* None.

*Proposed status of specific name.* Unavailable name (nomen nudum); subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876.

*Comments.* The name “*Phrynocephalus vlangalii* var. *geckoides*” was first published by Bedriaga (“1905” 1906a: 172) without a diagnosis and was therefore a nomen nudum then. This name became available only with the later Bedriaga’s publication (1909: 466) in which he provided the formal description. As for the name “*Phrynocephalus vlangalii* var. *geckoides*” Bedriaga, “1905” 1906, since it has no status in nomenclature, it does not have a name-bearing type.

#### 62. “*grombtschewskii*” Bedriaga, “1905” 1906

*Original name.* “*Phrynocephalus vlangalii* var. *grombtschewskii*” Bedriaga, “1905” 1906a: 172.

*Name-bearing type.* None.

*Type locality.* None.

*Proposed status of specific name.* Unavailable name (nomen nudum); subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876.

*Comments.* The name “*Phrynocephalus vlangalii* var. *grombtschewskii*” was first published by Bedriaga

(“1905” 1906a: 172) without a diagnosis and was therefore a nomen nudum then. This name became available only with the later Bedriaga’s publication (1909: 463) in which he provided the formal description. As for the name “*Phrynocephalus vlangalii* var. *grombtschewskii*” Bedriaga, “1905” 1906, since it has no status in nomenclature, it does not have a name-bearing type.

63. *bergi* Elpatjevsky, 1906 "1907"

*Original name.* *Phrynocephalus bergi* Elpatjevsky, 1906 "1907": 51.

*Name-bearing type.* Lectotype by present designation, ZISP 10384.1, unsexed juvenile, SVL 33.0 mm, TL 47.5 mm.

*Type locality.* (1) “Kizil-Dzhar on the Ili river”; (2) “Malai-Kuduk, Vernyi District”; (3) “village Ilijsk on the Ili river, Semirechensky District” [= Kapshagay, Almaaty Region, Kazakhstan]. Restricted by lectotype designation (above) to the vicinity of the Malaykuduk village, Kazakhstan.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus kuschakewitschi* Bedriaga *In* Nikolsky, 1905 (Dunayev, 1996).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

*Comments.* The author’s reprints with the description of this form was printed in 1906, but complete volume of *Mitteilungen* was issued in 1907 (Dunayev, 1996).

64. *carinipes* Nikolsky, 1907

*Original name.* *Phrynocephalus olivieri* var. *carinipes* Nikolsky, 1907: 273.

*Name-bearing type.* Lectotype by present designation, ZISP 10236, adult female, SVL 42.5 mm, TL 59.5 mm.

*Type locality* (restricted by lectotype designation). “Pudesch-Kupa”, province uncertain, Iran.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus scutellatus* (Olivier, 1807) (Anderson, 1999).

65. *brevipes* Nikolsky, 1907

*Original name.* *Phrynocephalus olivieri* var. *brevipes* Nikolsky, 1907: 274.

*Name-bearing type.* Lectotype by present designation, ZISP 10235, adult female, SVL 52.7 mm, TL 65.2 mm.

*Type locality* (restricted by lectotype designation). “Naim-abad (Damysan) in Chorosano occident” [= Naim-Abad, 36°14' N, 54°39' E, Mazanderan Province, Iran].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus scutellatus* (Olivier, 1807) (Anderson, 1999).

66. *klemenzi* Bedriaga, 1907

*Original name.* *Phrynocephalus axillaris* var. *Klemenzi* Bedriaga, 1907: 163.

*Name-bearing type.* Lectotype by present designation, ZISP 10050.1, adult male, SVL 54.3 mm, TL 83.2 mm.

*Type locality* (restricted by lectotype designation). “Turfan” [= Turpan County, Xinjiang Uygur Autonomous Region, China].

*Current status of specific name of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus axillaris* Blanford, 1875 (Zhao & Adler, 1993; Zhao *et al.*, 1999).

67. *pewzowi* Bedriaga, 1907

*Original name.* *Phrynocephalus Pewzowi* Bedriaga, 1907: 139, 173.

*Name-bearing type.* Holotype, ZISP 7440.

*Type locality.* “vom Chekou am Hoang-ho” [= Ziko’u or Hsi-ku, now Zhugqu, approximately 33°48' N, 104°30' E, southeast Gansu Province, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876 (Semenov & Shenbrot, 1989) Invalid name, subjective junior synonym of *Phrynocephalus frontalis* Strauch, 1876 (Zhao *et al.*, 1999). Name with uncertain status (Zhao & Adler, 1993).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

#### 68. *salenskyi* Bedriaga, 1907

*Original name.* *Phrynocephalus Salenskyi* Bedriaga, 1907: 141, 213.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 30), ZISP 7035.1.

*Type locality* (restricted by lectotype designation). “Urungu Fluss” [= Ulungur River, Xinjiang Uygur Autonomous Region, China].

*Current status of specific name.* Valid name, as *Phrynocephalus salenskyi* Bedriaga, 1907 (Peters, 1984). Name with uncertain status (Zhao & Adler, 1993). Invalid name, subjective junior synonym of *Phrynocephalus guttatus* (Gmelin, 1789) (Zhao, 1997).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

*Comments.* (1) The name is sometimes misspelled *Phrynocephalus Zalenskii* by Bedriaga (1907: 135, 141, 148), but his footnote on page 213 makes it clear that “*salenskyi*” is the intended form. (2) Peters (1984: 30) who acted as first reviser between the names *Phrynocephalus Salenskyi* Bedriaga, 1907, *Phrynocephalus Isseli* Bedriaga, 1907, and *Phrynocephalus Haeckeli* Bedriaga, 1907, chose to give priority to the name *Phrynocephalus salenskyi*.

#### 69. *isseli* Bedriaga, 1907

*Original name.* *Phrynocephalus Isseli* Bedriaga, 1907: 229.

*Name-bearing type.* Holotype, ZISP 5164.

*Type locality.* Desert in vicinity of Mt. Ssalburty (in Saur mountains of the Tarbagatay range, Xinjiang Uygur Autonomous Region), China.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus salenskyi* Bedriaga, 1907 (Peters, 1984). Name with uncertain status (Zhao & Adler, 1993).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

*Comments.* (1) The types of *Phrynocephalus isseli* and *Phrynocephalus haeckeli* were collected on the same expedition by G.N. Potanin and possess consecutive catalogue number. They may have been collected at the same locality, but Bedriaga’s information for *haeckeli* is more detailed. Peters (1984: 31) stated that the type of *isseli* was collected on the south-eastern bank of Ulungur Lake, Xinjiang Uygur Autonomous Region, China. (2) Peters (1984: 30) who acted as first reviser between the names *Phrynocephalus Salenskyi* Bedriaga, 1907, *Phrynocephalus Isseli* Bedriaga, 1907, and *Phrynocephalus Haeckeli* Bedriaga, 1907, chose to give priority to the name *Phrynocephalus salenskyi*.

#### 70. *haeckeli* Bedriaga, 1907

*Original name.* *Phrynocephalus Haeckeli* Bedriaga, 1907: 237.

*Name-bearing type.* Holotype, ZISP 5163.

*Type locality.* Desert in vicinity of Mt. Ssalburty (in Saur mountains of the Tarbagatay range), in the Tar-

bagataï (= Tacheng County) district, northern Xinjiang Uygur Autonomous Region, China.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus salenskyi* Bedriaga, 1907 (Peters, 1984). Name with uncertain status (Zhao & Adler, 1993).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

*Comments.* (1) The types of *Phrynocephalus isseli* and *Phrynocephalus haeckeli* were collected on the same expedition by G.N. Potanin and possess consecutive catalogue number. They may have been collected at the same locality, but Bedriaga's information for *haeckeli* is more detailed. Peters (1984: 31) stated that the type of *haeckeli* was collected on the south-eastern bank of Ulungur Lake, Xinjiang Uygur Autonomous Region, China. (2) Peters (1984: 30) who acted as first reviser between the names *Phrynocephalus Salenskyi* Bedriaga, 1907, *Phrynocephalus Isseli* Bedriaga, 1907, and *Phrynocephalus Haeckeli* Bedriaga, 1907, chose to give priority to the name *Phrynocephalus salenskyi*.

#### 71. *steindachneri* Bedriaga, 1907

*Original name.* *Phrynocephalus steindachneri* Bedriaga, 1907: 140.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 40), ZISP 8157.

*Type locality* (restricted by lectotype designation). "Quellfluß des Edsin-gol [= Ruo River] am Nordrande des Nan-shan [= Nanshan mountains] bei Gao-Tai [= Gaotai, approximately 39°22' N, 99°48' E]", Gansu Province, China.

*Current status of specific name.* Valid name, as *Phrynocephalus steindachneri* Bedriaga, 1907 (Peters, 1984; Barts & Wilms, 2003). Name with uncertain status (Zhao & Adler, 1993).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

#### 72. *cameranoi* Bedriaga, 1907

*Original name.* *Phrynocephalus helioscopus* var. *Cameranoi* Bedriaga, 1907: 243.

*Name-bearing type.* Lectotype by present designation, ZISP 10036.1, adult female.

*Type locality* (restricted by lectotype designation). "Kuldscha" [= Yining Shi, approximately 43°54' N, 81°18' E, western Xinjiang Uygur Autonomous Region, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus helioscopus* (Pallas, 1771) and *Phrynocephalus helioscopus helioscopus* (Pallas, 1771) (Wermuth, 1967). Name with uncertain status (Zhao & Adler, 1993).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus helioscopus varius* Eichwald, 1831.

#### 73. *maculata* Bedriaga, 1907

*Original name.* *Phrynocephalus axillaris* var. *maculata* Bedriaga, 1907: figure caption to the Table III, fig. 3; nec *Phrynocephalus maculatus* Anderson, 1872: 389.

*Name-bearing type.* Holotype, ZISP 8272.

*Type locality.* "Tschetschen" [probably Qiemo Xian, Qarqan Xian, approximately 38°08' N, 85°32' E, Xinjiang Uygur Autonomous Region, China].

*Proposed status of specific name.* Unavailable name (junior primary homonym in the genus *Phrynocephalus* Kaup, 1825); subjective junior synonym of *Phrynocephalus axillaris* (Blanford, 1875).

*Comments.* (1) This name was preoccupied and therefore cannot threaten the stability of nomenclature. (2) This name first appeared in Bedriaga without formal description but was associated with figure (Table III, fig. 3) which is enough to make it nomenclaturally available according to the Article 12.2.7 of the *Code*.

74. *ciliaris* Bedriaga, 1909

*Original name.* *Phrynocephalus ciliaris* Bedriaga, 1909: 297.

*Name-bearing type.* Holotype, ZISP 7462.

*Type locality.* “Edsin-gol [= Ruo Shui], which flows near Gaotaï and Sutschschou [= Jiuquan County, Gansu Province], into the Zsaj-jan-chaj lake [= Gaxun Nur, Nei Mongol (Inner Mongolia) Autonomous Region]”, China.

*Current status of specific name.* Name with uncertain status (Zhao & Adler, 1993).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

75. *putjatai* Bedriaga, 1907

*Original name.* *Phrynocephalus Putjatai* Bedriaga, 1907: 302.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 44), ZISP 7447.1.

*Type locality* (restricted by lectotype designation). “Gui-dui am Hoang-ho” [= Guide County (36°00' N, 101° 40' E), southeast of Qinghai (Kuku-Nor) Lake, Qinghai Province, China].

*Current status of specific name.* Name with uncertain status (Zhao & Adler, 1993). Valid name, as *Phrynocephalus putjatai* Bedriaga, 1907 (Wang *et al.*, 2002).

*Proposed status of specific name.* Valid name, as *Phrynocephalus putjatai* Bedriaga, 1907.

*Comments.* The original proposal of *Phrynocephalus putjatai* was provided in the Bedriaga’s key, published in 1907, and a full, formal description, including the type locality, was published in 1909 in the third part of the same book, on pages 302-307.

76. *arcellazzii* Bedriaga, 1907

*Original name.* *Phrynocephalus Arcellazzii* Bedriaga, 1907: 307.

*Name-bearing type.* Holotype, ZISP 8166.

*Type locality.* "Gaschun, in der Nähe von Gutschen in der Dschungarei" [= Qitai, (44°00' N, 89°50' E), Junggar Basin, Xinjiang Uygur Autonomous Region, China].

*Current status of specific name.* Valid name, as *Phrynocephalus arc当地azzii* Bedriaga, 1907 (Barts & Wilms, 2003). Name with uncertain status (Zhao & Adler, 1993).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

*Comments.* (1) Although spelled *Phrynocephalus Arcellazzii* on page 144, elsewhere in his book Bedriaga spelled the name *Phrynocephalus Arcellazzii*; (2) The original proposal of *Phrynocephalus arc当地azzii* was provided in the Bedriaga’s key, published in 1907, and a full, formal description, including the type locality, was published in 1909 in the third part of the same book, on pages 307-311.

77. *kulagini* Bedriaga, 1909

*Original name.* *Phrynocephalus versicolor* var. *Kulagini* Bedriaga, 1909: 329.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 36), ZISP 5840.

*Type locality* (restricted by lectotype designation). Chirgis-nur Lake in northwestern Mongolia.

*Current status of specific name.* Valid name, as *Phrynocephalus versicolor kulagini* Bedriaga, 1909 (Golubev, 1992; Ananjeva *et al.*, 1997; Ananjeva *et al.*, 2004).

78. *hispida* Bedriaga, 1909

*Original name.* *Phrynocephalus versicolor* var. *hispida* Bedriaga, 1909: 331.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 37), ZISP 6637.1.

*Type locality* (restricted by lectotype designation). “Dschungaria orientalis” [= Junggar Basin, Xinjiang

Uygur Autonomous Region, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876 (Semenov & Shenbrot, 1989; Zhao & Adler, 1993; Zhao *et al.*, 1999).

79. *doriae* Bedriaga, 1909

*Original name.* *Phrynocephalus versicolor* var. *Doriae* Bedriaga, 1909: 332.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 36), ZISP 5117.1.

*Type locality* (restricted by lectotype designation). “See Ebi-nor” [= Ebinur Lake, Xinjiang Uygur Autonomous Region, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876 (Zhao & Adler, 1993; Zhao *et al.*, 1999).

80. *siebenrocki* Bedriaga, 1909

*Original name.* *Phrynocephalus versicolor* var. *Siebenrocki* Bedriaga, 1909: 333.

*Name-bearing type.* Holotype, ZISP 5156.

*Type locality.* “between Metschin-Ola [= Mieh-Ch’eng-O-La Shan, about 30 km northeast of Barkol] and Barkul town [= Barkol, approximately 43°55' N, 93°00' E, Barkol County]”, Xinjiang Uygur Autonomous Region, China.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876 (Peters, 1984; Zhao & Adler, 1993; Zhao *et al.*, 1999).

81. *bogdanowi* Bedriaga, 1909

*Original name.* *Phrynocephalus versicolor* var. *Bogdanowi* Bedriaga, 1909: 334.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 39), ZISP 7027.1.

*Type locality* (restricted by lectotype designation). Galbyn-Gobi, Mongolia.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876 (Semenov & Shenbrot, 1989).

82. *acutirostris* Bedriaga, 1907

*Original name.* *Phrynocephalus acutirostris* Bedriaga, 1907: 339.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 34), ZISP 5548.1.

*Type locality* (restricted by lectotype designation). “bei Kuldja am Ili” [= Yining Shi, approximately 43°54' N, 81°18' E, western Xinjiang Uygur Autonomous Region, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus kushake-witschi* Bedriaga In Nikolsky, 1905 (Peters, 1984). Name with uncertain status (Zhao & Adler, 1993).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus alpherakii* Bedriaga In Nikolsky, 1905

*Comments.* The original proposal of *Phrynocephalus acutirostris* was provided in the Bedriaga’s key, published in 1907, and a full, formal description, including the type locality, was published in 1909 in the third part of the same book, on pages 339-346.

83. *blanfordi* Bedriaga, 1909

*Original name.* *Phrynocephalus Blanfordi* Bedriaga, 1909: 381.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 39), ZISP 7483.1.

*Type locality* (restricted by lectotype designation). “Wüste am Nan-shan-Gebirge” [= Nanshan range along Qinghai-Gansu border, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876 (Peters, 1984; Semenov & Shenbrot, 1989). Name with uncertain status (Zhao & Adler, 1993).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876.

*Comments.* The original proposal of *Phrynocephalus Blanfordi* was provided in the Bedriaga’s key, published in 1907, and a full, formal description, including the type locality, was published in 1909 in the third part of the same book, on pages 381-389.

#### 84. *potanini* Bedriaga, 1909

*Original name.* *Phrynocephalus potanini* Bedriaga, 1909: 389.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 39), ZISP 7438.1.

*Type locality* (restricted by lectotype designation). “Fluss Shan-Marin in Ordos” [= Ulan Muren, Ordos Desert, Nei Mongol (Inner Mongolia) Autonomous Region, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876 (Semenov & Shenbrot, 1989). Invalid name, subjective junior synonym of *Phrynocephalus frontalis* Strauch, 1876 (Zhao, 1997; Zhao *et al.*, 1999).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

*Comments.* The original proposal of *Phrynocephalus potanini* was provided in the Bedriaga’s key, published in 1907, and a full, formal description, including the type locality, was published in 1909 in the third part of the same book, on pages 389-397.

#### 85. *carinilabris* Bedriaga, 1909

*Original name.* *Phrynocephalus carinilabris* Bedriaga, 1909: 412.

*Name-bearing type.* Lectotype by present designation, ZISP 10025, adult male, SVL 49.7 mm, TL 69.5 mm.

*Type locality* (restricted by lectotype designation). “unterhalb von Chekou am Hoang-ho” [= Ziko’u or Hsikou, now Zhugqu, approximately 33°48' N, 104°30' E, southeast Gansu Province, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876 (Semenov & Shenbrot, 1989). Invalid name, subjective junior synonym of *Phrynocephalus frontalis* Strauch, 1876 (Zhao, 1997; Zhao *et al.*, 1999). Name with uncertain status (Zhao & Adler, 1993).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

*Comments.* The original proposal of *Phrynocephalus carinilabris* was provided in the Bedriaga’s key, published in 1907, and a full, formal description, including the type locality, was published in 1909 in the third part of the same book, on pages 412-420.

#### 86. *grumgrzimailoi* Bedriaga, 1909

*Original name.* *Phrynocephalus Grum-Grzimailoi* Bedriaga, 1909: 420.

*Name-bearing type.* Lectotype by present designation, ZISP 8178.1, adult male, SVL 56.1 mm, TL 70.5 mm.

*Type locality* (restricted by lectotype designation). “Gutschen” [= Qitai County, Xinjiang Uygur Autonomous Region, China].

*Current status of specific name.* Valid name, as *Phrynocephalus grumgrzimailoi* Bedriaga, 1909 (Zhao, 1997; Zhao *et al.*, 1999).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

*Comments.* The original proposal of *Phrynocephalus Grum-Grzimailoi* was provided in the Bedriaga's key, published in 1907, and a full, formal description, including the type locality, was published in 1909 in the third part of the same book, on pages 420-427.

#### 87. *grombtschewskii* Bedriaga, 1909

*Original name.* *Phrynocephalus Vlangalii* var. *Grombtschewskii* Bedriaga, 1909: 463.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 44), ZISP 7269.1.

*Type locality* (restricted by lectotype designation). "Dabsun-Gobi" [= Qaidam Basin, south of Qinghai Hu mountain, Qinghai Province, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876 (Peters, 1984; Zhao *et al.*, 1999).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876 and *Phrynocephalus vlangalii vlangalii* Strauch, 1876.

#### 88. *geckoides* Bedriaga, 1909

*Original name.* *Phrynocephalus Vlangalii* var. *geckoides* Bedriaga, 1909: 466.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 45), ZISP 6601.1.

*Type locality* (restricted by lectotype designation). Estuary of the Tschurmyn River [probably Tschumar, or Qumar He, Qinghai Province], China.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876 (Zhao *et al.*, 1999). Valid name, as *Phrynocephalus geckoides* Bedriaga, 1909 (Barts & Wilms, 2003).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876 and *Phrynocephalus vlangalii vlangalii* Strauch, 1876.

#### 89. *parva* Bedriaga, 1909

*Original name.* *Phrynocephalus Vlangalii* var. *parva* Bedriaga, 1909: 468.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 46), ZISP 7278.1.

*Type locality* (restricted by lectotype designation). "Dytschu" [= Moron Us and Tuotuo rivers, Qinghai Province, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876 (Zhao & Adler, 1993; Zhao *et al.*, 1999).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876 and *Phrynocephalus vlangalii vlangalii* Strauch, 1876.

*Comments.* Tsarevsky (1927b: 304) who acted as first reviser between the names *Phrynocephalus Vlangalii* var. *parva* Bedriaga, 1909 and *Phrynocephalus Vlangalii* var. *Pylzowi* Bedriaga, 1909, chose to give priority to the name *Phrynocephalus Vlangalii* var. *parva*.

#### 90. *pylzowi* Bedriaga, 1909

*Original name.* *Phrynocephalus Vlangalii* var. *Pylzowi* Bedriaga, 1909: 471.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 46), ZISP 7084.1.

*Type locality* (restricted by lectotype designation). "Hoang-ho-Quellgebiet", China.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus vlangalii*

Strauch, 1876 (Zhao & Adler, 1993; Zhao *et al.*, 1999).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876 and *Phrynocephalus vlangalii vlangalii* Strauch, 1876.

*Comments.* Tsarevsky (1927b: 304) who acted as first reviser between the names *Phrynocephalus Vlangalii* var. *parva* Bedriaga, 1909 and *Phrynocephalus Vlangalii* var. *Pylzowi* Bedriaga, 1909, chose to give priority to the name *Phrynocephalus Vlangalii* var. *parva*.

#### 91. *lidskii* Bedriaga, 1909

*Original name.* *Phrynocephalus Vlangalii* var. *Lidskii* Bedriaga, 1909: 479.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 47), ZISP 7258.1.

*Type locality* (restricted by lectotype designation). “Keria-Gebirge” [= Yutian Mountains, southern Xinjiang Uygur Autonomous Region – northern Xizang (Tibet) Autonomous Region, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876 (Zhao & Adler, 1993; Zhao *et al.*, 1999). Valid name, as *Phrynocephalus lidskii* Bedriaga, 1909 (Peters, 1984; Barts & Wilms, 2003).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus theobaldi* Blyth, 1863.

*Comments.* Peters (1984: 47) who acted as first reviser between the names *Phrynocephalus Vlangalii* var. *Lidskii* Bedriaga, 1909 and *Phrynocephalus erythrurus* Zugmayer, 1909, chose to give priority to the name *Phrynocephalus Vlangalii* var. *Lidskii*.

#### 92. *reldoe* Bedriaga, 1909

*Original name.* *Phrynocephalus Reldæ* Bedriaga, 1909: 495.

*Name-bearing type.* Holotype, ZISP 6630.

*Type locality.* “Gomi” [= Balekun Gomi or Kyikug, near Gong He County (36°20' N, 100°60' E), south of Qinghai (Kuku-Nor) Lake, Qinghai Province, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876 (Peters, 1984; Wang *et al.*, 2002). Name with uncertain status (Zhao & Adler, 1993).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876 and *Phrynocephalus vlangalii vlangalii* Strauch, 1876.

#### 93. *erythrurus* Zugmayer, 1909

*Original name.* *Phrynocephalus erythrurus* Zugmayer, 1909: 504.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 47), ZSM 317/1910.

*Type locality.* “Sagüs Kul, Nordwest-Tibet [Xizang Autonomous Region, China]”.

*Current status of specific name.* Valid name, as *Phrynocephalus erythrurus* Zugmayer, 1909 (Zhao & Adler, 1993; Zhao *et al.*, 1999).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus theobaldi* Blyth, 1863.

*Comments.* (1) Peters (1984: 47) stated that the lectotype of *Ph. erythrurus* was collected in the Sagüs-kol Plain, on the south side of "Keria" (= Yutian) Mountains, which would place it in the Kunlun Shan range along the Xinjiang-Xizang (Tibet) border, south of Keriya (= Yutian, Xijiang). (2) Peters (1984: 47) who acted as first reviser between the names *Phrynocephalus Vlangalii* var. *Lidskii* Bedriaga, 1909 and *Phrynocephalus erythrurus* Zugmayer, 1909, chose to give priority to the name *Phrynocephalus Vlangalii* var. *Lidskii*.

#### 94. *saposhnikovi* Kaščenko, 1909

*Original name.* *Phrynocephalus helioscopus* var. *saposhnikovi* Kaščenko, 1909: 122.

*Name-bearing type.* in the Tomsk State University Zoological Museum.

*Type locality.* (1) “steppe near the Karatalsky post in the Black Irtysh river valley” [= vicinity of the Karatal village, approximately 47°36' N, 85°10' E, Eastern Kazakhstan]; (2) “the Emil river valley”, Eastern Kazakhstan.

*Current status of specific name.* Valid name, as *Phrynocephalus helioscopus saposhnikovi* Kaščenko, 1909 (Ananjeva *et al.*, 2004).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus helioscopus varius* Eichwald, 1831.

*Comments.* Although spelled *Phrynocephalus helioscopus* var. *saposhnikowi* on page 123, elsewhere in his article Kaščenko spelled the name *Phrynocephalus helioscopus* var. *saposhnikovi*.

#### 95. *levis* Kaščenko, 1909

*Original name.* *Phrynocephalus helioscopus levis* Kaščenko, 1909: 122.

*Name-bearing type.* the Tomsk State University Zoological Museum.

*Type locality.* “near the Karatalsky post in the Black Irtysh river valley” [= vicinity of the Karatal village, approximately 47°36' N, 85°10' E, Eastern Kazakhstan].

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

#### 96. *ludovici* Moquard, 1910

*Original name.* *Phrynocephalus Ludovici* Moquard, 1910b: 146.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 50), MNHN 1909.39.

*Type locality.* “environ de Koutchar” [= Kuqa, 41°70' N, 82°90' E, Xinjiang Uygur Autonomous Region, China].

*Current status of specific name.* Invalid name, subjective synonym of *Phrynocephalus axillaris* Blanford, 1875 (Peters, 1984).

#### 97. *orientalis* Bedriaga, 1912

*Original name.* *Phrynocephalus helioscopus orientalis* Bedriaga, 1912: 751.

*Name-bearing type.* Lectotype by present designation, ZISP 6553.1, adult male, SVL 42.5 mm, TL 44.2 mm.

*Type locality* (restricted by lectotype designation). “Fl. Urungu” [= Ulungur River, Xinjiang Uygur Autonomous Region, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus helioscopus saposhnikovi* Kaščenko, 1909 (Peters *et al.*, 1990; Eremchenko & Panfilov, 1999) Name with uncertain status (Zhao & Adler, 1993)..

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus helioscopus varius* Eichwald, 1831.

#### 98. *moltschanovi* Nikolsky, 1913

*Original name.* *Phrynocephalus caudivolvulus* var. *moltschanovi* Nikolsky, 1913: 34.

*Name-bearing type.* Lectotype (designated by Semenov & Shenbrot, 1982), ZISP 19585.

*Type locality* (restricted by lectotype designation). Bel-Tau Mountain, near the Amu-Darja river mouth, Uzbekistan.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus* (Gmelin, 1789) and *Phrynocephalus guttatus guttatus* (Gmelin, 1789) (Golubev, 1989a; Lichnova, 1992).

99. *relictus* Nikolsky, 1915

*Original name.* *Phrynocephalus rossikowi relictus* Nikolsky, 1915: 169.

*Name-bearing type.* Unknown. In the original description Nikolsky (1915) noted one juvenile in the Kharkov Museum as the type. However, this specimen was not located in the museum collections at present time (A. Zinenko, pers. comm.).

*Type locality.* Kushkanatau Mountain in the Amu-Darja river mouth, Uzbekistan.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus rossikowi* Nikolsky, 1899 (Wermuth, 1967)

100. *zarudnyi* Nikolsky, 1915

*Original name.* *Phrynocephalus raddei* var. *zarudnyi* Nikolsky, 1915: 193.

*Name-bearing type.* Lectotype by present designation, ZISP 10722.1, adult male, SVL 42.7 mm, TL 59.2 mm.

*Type locality.* “Kelif, Buchara orient.” [= Kelif, approximately 37°20' N, 66°18' E, Turkmenistan].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus raddei* (Boettger, 1889) (Wermuth, 1967).

101. *bilkewitschi* Nikolsky, 1915

*Original name.* *Phrynocephalus raddei* var. *bilkewitschi* Nikolsky, 1915: 194.

*Name-bearing type.* Unknown.

*Type locality.* Turkmenistan.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus raddei* (Boettger, 1889) (Wermuth, 1967).

102. *bedrjagai* Tsarevsky, 1926

*Original name.* *Phrynocephalus bedrjagai* Tsarevsky, 1926: 214.

*Name-bearing type.* Lectotype (by designation of Peters, 1984: 31), ZISP 10606.1.

*Type locality* (restricted by lectotype designation). Zaissan Lake region, Eastern Kazakhstan.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus melanurus* Eichwald, 1831.

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

103. *birulai* Tsarevsky, 1927

*Original name.* *Phrynocephalus birulai* Tsarevsky, 1927b: 304.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 39), ZISP 12183.1.

*Type locality* (restricted by lectotype designation). Southern part of the Ala-Shan Desert [= Tengger Desert, Nei Mongol (Inner Mongolia) Autonomous Region, China].

*Current status of specific name.* Valid name, as *Phrynocephalus birulai* Tsarevsky, 1927 (Barts & Wilms, 2003).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

104. *suschkinianus* Tsarevsky, 1927

*Original name.* *Phrynocephalus suschkinianus* Tsarevsky, 1927b: 304.

*Name-bearing type.* Lectotype, by present designation, ZISP 12192.1, adult male.

*Type locality* (restricted by lectotype designation). “along Dangar-he river, eastern Nan-Shan” [= Huang

Shui, tributary of upper Huang He, eastern Nanshan, border area of Gansu and Qinghai Provinces, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus frontalis* Strauch, 1876 (Zhao *et al.*, 1999).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

105. *carinatus* Tsarevsky, 1927

*Original name.* *Phrynocephalus carinatus* Tsarevsky, 1927b: 305.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 40), ZISP 12187.1.

*Type locality* (restricted by lectotype designation). “along Dangar-he river, eastern Nan-Shan” [= Huang Shui, tributary of upper Huang He, eastern Nanshan, border area of Gansu and Qinghai Provinces, China].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876 (Zhao, 1997; Zhao *et al.*, 1999).

106. *elegans* Tsarevsky, 1927

*Original name.* *Phrynocephalus elegans* Tsarevsky, 1927b: 305.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 41), ZISP 12193.1.

*Type locality* (restricted by lectotype designation). “Eastern Alashan [= Tengger Desert, Nei Mongol (Inner Mongolia) Autonomous Region], from Tingyuanying [= Dingyuanying, Nei Mongol] to Scharuzan-Sume [Ningxia Hui Autonomous Region]”, China.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876 (Zhao, 1997; Zhao *et al.*, 1999). Valid name, as *Phrynocephalus elegans* Tsarevsky, 1927 (Barts & Wilms, 2003).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

107. *parvulus* Tsarevsky, 1927

*Original name.* *Phrynocephalus parvulus* Tsarevsky, 1927b: 305.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 40), ZISP 12189.1.

*Type locality* (restricted by lectotype designation). “Eastern Alashan [= Tengger Desert, Nei Mongol (Inner Mongolia) Autonomous Region], from Tingyuanying [= Dingyuanying, Nei Mongol] to Scharuzan-Sume [Ningxia Hui Autonomous Region]”, China.

*Current status of specific name* (Zhao & Adler, 1993; Zhao *et al.*, 1999). Invalid name, subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876. Valid name, as *Phrynocephalus parvulus* Tsarevsky, 1927 (Barts & Wilms, 2003).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

108. *rostralis* Tsarevsky, 1930

*Original name.* *Phrynocephalus rostralis* Tsarevsky, 1930: 216.

*Name-bearing type.* Lectotype (designated by Peters, 1984: 40), ZISP 12194.1.

*Type locality* (restricted by lectotype designation). “100-200 km from Urga [Ulanbaatr] to Kalgan”, Mongolia.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876 (Semenov & Shenbrot, 1989).

*Comments.* Peters (1984: 37) restricted the type locality to the “south-eastern Mongolia”. However, in the original description Tsarevsky provided more detailed information about the type locality of *P. rostralis*, and

gave it as the “100-200 km from Urga to Kalgan”.

109. *galli* Krassowsky, 1932

*Original name.* *Phrynocephalus mystaceus Galli* Krassowsky, 1932: 227, Pl. 1-4.

*Name-bearing type.* Lectotype (designated by Semenov & Shenbrot, 1990: 78), ZMMU Re-6413.

*Type locality.* “Aus Repeteka andetritfft” [= vicinity of Repetek station, approximately 38°35' N, 63°11' E, Lebapsky Region, Turkmenistan].

*Current status of specific name.* Valid name, as *Phrynocephalus mystaceus galli* Krassowsky, 1932 (Ananjeva et al., 2004).

110. *"dagestanica"* Krassowsky, 1932

*Original name.* *“Phrynocephalus mystaceus mystaceus natio Dagestanica”* Krassowsky, 1932: 228.

*Name-bearing type.* None.

*Type locality.* “Petrowsk-Kaukasus” and “Sandhügel Sari-Kum bei Kumtor-Kala”, both localities in Daghestan Autonomous Republic, Russia.

*Proposed status of specific name.* Unavailable name (quadrinominal nomenclature); subjective junior synonym of *Phrynocephalus mystaceus* (Pallas, 1776).

*Comments.* As this name has no status in nomenclature, it does not have a name-bearing type.

111. *sogdianus* Chernov, 1948

*Original name.* *Phr[ynocephalus]. interscapularis sogdianus* Chernov, 1948: 135.

*Name-bearing type.* Holotype, ZISP 16887.

*Type locality.* “Tadzhikistan, vicinity of the Pjandzh village” [approximately 37°14' N, 69°05' E].

*Current status of specific name.* Valid name, as *Phrynocephalus interscapularis sogdianus* Chernov, 1948 (Lichnova, 1992). Valid name, as *Phrynocephalus sogdianus* Chernov, 1948 (Ananjeva et al., 2004).

*Proposed status of specific name.* Valid name, as *Phrynocephalus interscapularis sogdianus* Chernov, 1948.

*Comments.* The original proposal of *Phrynocephalus interscapularis sogdianus* was published in 1948, but a full, formal description, including the type locality and holotype designation, was published by Chernov only in 1959.

112. *"nejdensis"* Schmidt et Inger, 1957

*Original name.* *“Phrynocephalus nejdensis”* Schmidt et Inger, 1957: 83.

*Name-bearing type.* None.

*Type locality.* None.

*Current status of specific name.* Unavailable name (nomen nudum); subjective junior synonym of *Phrynocephalus arabicus* Anderson, 1894 (Leviton & Anderson, 1967).

*Comments.* The name “*Phrynocephalus nejdensis*” was first published by Schmidt & Inger (1957: 64, April) without a diagnosis and was therefore a nomen nudum then. This name became available only with the publication by Haas (1957: 68, November) who provided the formal description. As for the name “*Phrynocephalus nejdensis*” Schmidt et Inger, 1957, since it has no status in nomenclature, it does not have a name-bearing type.

113. *longicaudatus* Haas, 1957

*Original name.* *Phrynocephalus maculatus longicaudatus* Haas, 1957: 67.

*Name-bearing type.* Holotype, CAS 84449.

*Type locality.* “Doha Dhalum, Saudi Arabia”.

*Current status of specific name.* Valid name, as *Phrynocephalus maculatus longicaudatus* Haas, 1957 (Leviton *et al.*, 1992; Anderson, 1999).

114. *nejdensis* Haas, 1957

*Original name.* *Phrynocephalus nejdensis* Haas, 1957: 68.

*Name-bearing type.* Holotype, HUJ 2711.

*Type locality.* "Nafud, near Qana, North Nejd, WNW of Hail, Saudi Arabia".

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus arabicus* Anderson, 1894 (Leviton & Anderson, 1967; Leviton *et al.*, 1992).

*Comments.* As discussed above, the name *Phrynocephalus nejdensis* was first published in April, 1957 by Schmidt & Inger (1957: 83) as a nomen nudum. Haas (1957: 68) gave it a nomenclatural status by publishing the formal description with the designation of the type locality and holotype.

115. *macropeltis* Haas, 1957

*Original name.* *Phrynocephalus nejdensis macropeltis* Haas, 1957: 69.

*Name-bearing type.* Holotype, CAS 84619.

*Type locality.* "Dhahran [Az Zahrān], Saudi Arabia" [approximately 26°17' N, 50°12' E].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus arabicus* Anderson, 1894 (Leviton & Anderson, 1967; Leviton *et al.*, 1992).

116. "*stejnegeri*" Bannikov, 1958

*Original name.* "*Ph[rynocephalus]. stejnegeri*" Bannikov, 1958: 78.

*Name-bearing type.* None.

*Type locality.* None.

*Proposed status of specific name.* Unavailable name (nomen nudum); subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876.

*Comments.* The name "*Phrynocephalus stejnegeri*" was first published by Bannikov (1958: 78) without a diagnosis and was therefore a nomen nudum then. As for the name "*Phrynocephalus stejnegeri*" Bannikov, 1958, since it has no status in nomenclature, it does not have a name-bearing type.

117. *clarkorum* Anderson et Leviton, 1967

*Original name.* *Phrynocephalus clarkorum* S. Anderson et Leviton, 1967: 228.

*Name-bearing type.* Holotype, CAS 97989.

*Type locality.* "20 miles southeast of Kandahar, Afghanistan, 31°20'N., 65°50'E.".

*Current status of specific name.* Valid name, as *Phrynocephalus clarkorum* Anderson et Leviton, 1967 (Anderson, 1999).

118. *bannikovi* Darevsky, Rustamov et Shammakov, 1976

*Original name.* *Phrynocephalus reticulatus bannikovi* Darevsky, Rustamov et Shammakov, 1976: 114.

*Name-bearing type.* Holotype, ZISP 18505.

*Type locality.* "Tuarkyr Mountains, north-western Turkmenistan".

*Current status of specific name.* Valid name, as *Phrynocephalus bannikovi* Darevsky, Rustamov et Shammakov, 1976 (Lichnova, 1992). Valid name, as *Phrynocephalus reticulatus bannikovi* Darevsky, Rustamov et Shammakov, 1976 (Ananjeva *et al.*, 1998; Ananjeva *et al.*, 2004).

*Proposed status of specific name.* Valid name, as *Phrynocephalus reticulatus bannikovi* Darevsky, Rustamov et Shammakov, 1976.

119. *laungwalaensis* Sharma, 1978

*Original name.* *Phrynocephalus laungwalaensis* Sharma, 1978: 291.

*Name-bearing type* (Das *et al.*, 1998). Holotype, ZSI 23452.

*Type locality.* “sand-dunes near Laungwala, 26°46' N, 70°13' E, alt. 149.96 m, Jaisalmer District, Rajasthan State, western India” according to the original jar label (Das *et al.*, 1998).

*Current status of specific name.* Valid name, as *Bufoniceps laungwalaensis* (Sharma, 1978) (Arnold, 1993).

120. *shammakowi* Szczerbak et Golubev, 1979

*Original name.* *Phrynocephalus rossikowi shammakowi* Szczerbak et Golubev, 1979: 81.

*Name-bearing type.* Holotype, IZANU Re 11.

*Type locality.* “20 km NE Sernyi Zavod village”, Kara-Kum desert, Turkmenistan.

*Current status of specific name.* Valid name, as *Phrynocephalus rossikowi shammakowi* Szczerbak et Golubev, 1979 (Ananjeva *et al.*, 1998; Ananjeva *et al.*, 2004). Invalid name, subjective junior synonym of *Phrynocephalus rossikowi* Nikolsky, 1899 (Mezhzherin & Golubev, 1998).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus rossikowi* Nikolsky, 1899.

121. *albolineatus* K. Zhao, 1979

*Original name.* *Phrynocephalus albo-lineatus* K. Zhao, 1979: 113; incorrect original spelling, to be corrected into *Phrynocephalus albolineatus* Zhao, 1979.

*Name-bearing type.* Holotype, NMU 77181.

*Type locality.* “45 kilometers south of Tacheng County, Xinjiang Uygur Autonomous Region, China; 584 m elevation”.

*Current status of specific name.* Valid name, as *Phrynocephalus albolineatus* Zhao, 1979 (Zhao *et al.*, 1999; Pang *et al.*, 2003).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus melanurus* Eichwald, 1831.

122. *hongyuanensis* E. Zhao, Jiang et Huang In Jiang, Huang et E. Zhao, 1980

*Original name.* *Phrynocephalus vlangalii hongyuanensis* E. Zhao, Jiang et Huang In Jiang, Huang et Zhao, 1980: 178.

*Name-bearing type* (Guo *et al.*, 1999). Holotype, CIB 785795.

*Type locality.* Waqên, Hongyuan County, 33°03'N; 102°37'E, Sichuan Province, China; 3500 m.

*Current status of specific name.* Valid name, as *Phrynocephalus hongyuanensis* E. Zhao, Jiang et Huang In Jiang, Huang et E. Zhao, 1980 (Zhao, 1997; Zhao *et al.*, 1999; Pang *et al.*, 2003).

*Proposed status of specific name.* Valid name, as *Phrynocephalus vlangalii hongyuanensis* E. Zhao, Jiang et Huang In Jiang, Huang et E. Zhao, 1980.

123. *saidalievi* Sattorov, 1981

*Original name.* *Phrynocephalus helioscopus saidalievi* Sattorov, 1981a: 73.

*Name-bearing type.* Holotype, IZANU Re 12.

*Type locality.* “vicinity of the Kanibadam village (Tadjik part of the Fergana Valley)” [= Konibodom village, approximately 40°17' N, 70°25' E, Tadjikistan].

*Current status of specific name.* Valid name, as *Phrynocephalus helioscopus saidalievi* Sattorov, 1981 (Ananjeva *et al.*, 1998; Ananjeva *et al.*, 2004). Valid name, as *Phrynocephalus saidalievi* Sattorov, 1981 (Eremchenko & Panfilov, 1999).

*Proposed status of specific name.* Valid name, as *Phrynocephalus helioscopus saidalievi* Sattorov, 1981.

124. ***kalmykus*** Badmaeva et Szczerbak, 1983

*Original name.* *Phrynocephalus guttatus kalmykus* Badmaeva et Szczerbak, 1983: 34.

*Name-bearing type.* Holotype, IZANU Re 15.

*Type locality.* “Kalmynskaya ASSR, Khulkhuta village” [= Khulkhuta village, approximately 46°19' N, 46°22' E, Chernozemelskiy District, Kalmykia].

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus* (Gmelin, 1789) and *Phrynocephalus guttatus* (Gmelin, 1789) (Shenbrot & Semenov, 1987; Zavyalov & Tabachishin, 2000; Kuzmin & Semenov, 2006).

125. “***steynegeri*** Peters, 1984

*Original name.* “*Phrynocephalus steynegeri*” Peters, 1984: 37.

*Name-bearing type.* None.

*Type locality.* “Nojon-bogd im Süden MVR” [= vicinity of the Nojon village, Southern-Gobi aimak, Mongolia].

*Proposed status of specific name.* Unavailable name (published as a synonym); subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876.

*Comments.* Peters (1984: 37) was the first author to publish the name “*Phrynocephalus steynegeri*” as a synonym of *Phrynocephalus versicolor*. He had read this name on a ZISP handwritten jar label, which he credited to Tsarevsky. However, Tsarevsky apparently never used the name “*Phrynocephalus steynegeri*”. This name having been first published as a synonym and not having been used as an available name prior to 1961, it has no status in nomenclature according to Articles 11.6 and 11.6.3 of the *Code* and is not available. As this name has no status in nomenclature, it does not have a name-bearing type.

126. “***werneri*** Peters, 1984

*Original name.* “*Phrynocephalus werneri*” Peters, 1984: 39.

*Name-bearing type.* None.

*Type locality.* “Ordos” [= Ordos Desert, Nei Mongol (Inner Mongolia) Autonomous Region, China].

*Proposed status of specific name.* Unavailable name (published as a synonym); subjective junior synonym of *Phrynocephalus przewalskii* Strauch, 1876.

*Comments.* Peters (1984: 39) was the first author to publish the name “*Phrynocephalus werneri*” as a synonym of *Phrynocephalus frontalis*. He had read this name on a ZISP handwritten jar label, which he credited to Tsarevsky. However, Tsarevsky apparently never used the name “*Phrynocephalus werneri*”. This name having been first published as a synonym and not having been used as an available name prior to 1961, it has no status in nomenclature according to Article 11.6 and 11.6.3 of the *Code* and is not available. As this name has no status in nomenclature, it does not have a name-bearing type.

127. “***occidentalis*** Peters, 1984

*Original name.* “*Phrynocephalus vlangalii* var. *occidentalis*” Peters, 1984: 47.

*Name-bearing type.* None.

*Type locality.* “zwischen Atschan und Ssutschet”, province uncertain, China.

*Proposed status of specific name.* Unavailable name (published as a synonym); subjective junior synonym of *Phrynocephalus vlangalii* Strauch, 1876 and *Phrynocephalus vlangalii vlangalii* Strauch, 1876.

*Comments.* Peters (1984: 37) was the first author to publish the name “*Phrynocephalus vlangalii* var. *occidentalis*” as a synonym of *Phrynocephalus lidskii*. He had read this name on a ZISP handwritten jar label, which he credited to Bedriaga. However, Bedriaga apparently never used the name “*Phrynocephalus vlangalii*

var. *occidentalis*”. This name having been first published as a synonym and not having been used as an available name prior to 1961, it has no status in nomenclature according to Articles 11.6 and 11.6.3 of the *Code* and is not available. As this name has no status in nomenclature, it does not have a name-bearing type.

128. *alticola* Peters, 1984

*Original name.* *Phrynocephalus alticola* Peters, 1984: 58.

*Name-bearing type.* Holotype, BMNH 60.3.19.38A.

*Type locality.* “Ruckchin = Rukchen, in der Landschaft Rupshu in Ladakh, ca. 90 km SES von Leh; abflussloses Hochtal zwischen 4000-500 m über NN” in Jammu and Kashmir State, India.

*Current status of specific name.* Valid name, as *Phrynocephalus alticola* Peters, 1984 (Das, 1996).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus theobaldi* Blyth, 1863.

129. *dagestanica* Ananjeva, “1986” 1987

*Original name.* *Megalochilus mystaceus dagestanica* Ananjeva, “1986” 1987: 11.

*Name-bearing type.* Neotype by present designation, ZISP 15252.1, adult male, SVL 87.0 mm, TL 88.6 mm.

*Type locality.* “Kumtorkala”, approximately 42°59' N, 47°15' E, Daghestan Autonomous Republic, Russia.

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus mystaceus* (Pallas, 1776) and *Phrynocephalus mystaceus mystaceus* (Pallas, 1776).

*Comments.* (1) The name *dagestanica* was first proposed by Krassowsky (1932: 228) as the infrasubspecific taxon (quadrinomen) and therefore unavailable. Ananjeva (“1986” 1987: 11) was the first author who used this name as trinomen. Strictly following the Article 45.5.1 of the *Code* since this publication the name *dagestanica* became available as *Megalochilus mystaceus dagestanica* and Ananjeva is the author, in the nomenclature sense of the term, of this name (Dunayev, 2001). (2) As the original name-bearing type appears to be unknown, stabilization of the status of this name requires the designation of a neotype coming from the Kumtorkala.

130. *paraskiwi* Semenov, Brushko, Shenbrot et Kubykin, 1987

*Original name.* *Phrynocephalus versicolor paraskiwi* Semenov, Brushko, Shenbrot et Kubykin, 1987: 106.

*Name-bearing type.* Holotype, IZK 178.

*Type locality.* “Ili river hollow, urochishe Ajakkalkan, Taldy-Kurgan Region, Kazakhstan”.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus* (Gmelin, 1789) (Golubev, 1989a).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus guttatus alpherakii* Bedriaga In Nikolsky, 1905.

131. *aurantiacocaudatus* Semenov et Shenbrot, 1990

*Original name.* *Phrynocephalus mystaceus aurantiacocaudatus* Semenov et Shenbrot, 1990:79.

*Name-bearing type.* Holotype, ZMMU Re-6412.

*Type locality.* “Eastern Kazakhstan (Semirechije), 70 km NNW urochishe Ushtobe (45°50' N; 77°40' E)”.

*Current status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus mystaceus* (Pallas, 1776) (Golubev & Sattarov, 1992).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus mystaceus galli* Krassowsky, 1932.

132. *golubewii* Shenbrot et Semenov, 1990

*Original name.* *Phrynocephalus golubewii* Shenbrot et Semenov, 1990: 154.

*Name-bearing type.* Holotype, ZMMU Re-6411.

*Type locality.* “saltpan Ulyshor, 160 km NEN of Ashgabad, Turkmenistan” on the original jar label (Boris-senko *et al.*, 2001); “vicinity of the Bami rail-road station [= 7 km N railway station Bamy]” in the original description.

*Current status of specific name.* Valid name, as *Phrynocephalus golubewii* Shenbrot et Semenov, 1990 (Arnold, 1999; Ananjeva *et al.*, 2004).

133. *salsatus* Gorelov, Dunayev et Kotenko *In* Golubev, Gorelov, Dunayev et Kotenko, 1995

*Original name.* *Phrynocephalus guttatus salsatus* Gorelov, Dunayev et Kotenko *In* Golubev, Gorelov, Dunayev et Kotenko, 1995: 34.

*Name-bearing type.* Holotype, IZANU Re-21/1.

*Type locality.* “North Turkmeniya, salt hollow Kazakhlyshor between sands Kumsebshen and the chink of Ustjurt (40°17' N, 55°46' E)”.

*Current status of specific name.* Valid name, as *Phrynocephalus guttatus salsatus* Gorelov, Dunayev et Kotenko *In* Golubev, Gorelov, Dunayev et Kotenko, 1995 (Ananjeva *et al.*, 2004).

134. *nasatus* Golubev et Dunayev, 1995

*Original name.* *Phrynocephalus nasatus* Golubev et Dunayev, 1995: 5.

*Name-bearing type.* Holotype, ZMMU Re-7614.

*Type locality.* “between the mountain pass of Topa-Duvan (Topa-Bell, Karaduvan Ridge; 41°34' N, 80°14' E), Kashgaria [Xinjiang Autonomous Region], West China”.

*Current status of specific name.* Valid name, as *Phrynocephalus nasatus* Golubev et Dunayev, 1995 (Zhao, 1997; Zhao *et al.*, 1999).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus axillaris* Blanford, 1875.

135. *immaculatus* K. Zhao, 1995

*Original name.* *Phrynocephalus immaculatus* K. Zhao, 1995: 47.

*Name-bearing type.* Holotype, SRNC R8017.

*Type locality.* “Siziwang Qi (41.5 N, 111.7 E), Inner Mongolia [Autonomous Region], China”.

*Current status of specific name.* Valid name, as *Phrynocephalus immaculatus* Zhao, 1995 (Zhao, 1997; Zhao *et al.*, 1999).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus versicolor* Strauch, 1876 and *Phrynocephalus versicolor versicolor* Strauch, 1876.

136. *zetangensis* Wang, Zeng et Wu *In* Wang, Zeng, Fang, Liu, Wu, Papenfuss et Macey, 1996

*Original name.* *Phrynocephalus zetangensis* Wang, Zeng et Wu *In* Wang, Zeng, Fang, Liu, Wu, Papenfuss et Macey, 1996: 27.

*Name-bearing type.* Holotype, CIB 0156.

*Type locality.* “Zetang, Xizang Autonomous Region, China; 3950 m” [approximately 29°13' N, 91°47' E].

*Current status of specific name.* Valid name, as *Phrynocephalus zetangensis* Wang, Zeng et Wu *In* Wang, Zeng, Fang, Liu, Wu, Papenfuss et Macey, 1996 (Zhao, 1997; Zhao *et al.*, 1999; Pang *et al.*, 2003).

*Proposed status of specific name.* Invalid name, subjective junior synonym of *Phrynocephalus theobaldi* Blyth, 1963.

*Comments.* The name is sometimes misspelled “*zetaensis*” by Wang *et al.* (1996: 27, 28, 29).

137. *vindumi* Golubev, 1998

*Original name.* *Phrynocephalus ornatus vindumi* Golubev, 1998: 163.

*Name-bearing type.* Holotype, CAS 141204.

*Type locality.* “Iran, Khorasan Prov., 35 km. N of Gonabad on road to Torbat-E. Heydariyeh (ca. 34°49' N, 58°47' E), 850 m. elevation”.

*Proposed status of specific name.* Valid name, as *Phrynocephalus ornatus vindumi* Golubev, 1998.

138. *"orintalis"* Wang, Zeng, Fang, Wu, Papenfuss et Macey, 1998: 42.

*Original name.* *P[hrynocephalus]. theobaldi orintalis* Wang, Zeng, Fang, Wu, Papenfuss et Macey, 1998: 42.

*Name-bearing type.* None.

*Type locality.* None.

*Proposed status of specific name.* Unavailable name (not published in conformance with Article 9.9 of the Code).

139. *orientalis* Wang, Papenfuss et Zeng *In* Wang, Zeng, Fang, Wu, Papenfuss et Macey, 1999

*Original name.* *Phrynocephalus theobaldi orientalis* Wang, Papenfuss et Zeng *In* Wang, Zeng, Fang, Wu, Papenfuss et Macey, 1999: 181; nec *Phrynocephalus helioscopus* var. *orientalis* Bedriaga, 1912: 751.

*Name-bearing type.* Holotype, CIB 73 II 5346.

*Type locality.* “Lhasa, Xizang [Autonomous Region], China” [approximately 29°39' N, 91°07' E].

*Proposed status of specific name.* Unavailable name (junior primary homonym in the genus *Phrynocephalus* Kaup, 1825); junior subjective synonym of *Phrynocephalus theobaldi* Blyth, 1863.

*Comments.* This name was preoccupied and therefore cannot threaten the stability of nomenclature.

140. *lhasaensis* Barabanov, Ananjeva, Papenfuss et Wang, 2002

*Original name.* *Phrynocephalus theobaldi lhasaensis* Barabanov, Ananjeva, Papenfuss et Wang, 2002: 80; nomen novum pro *Phrynocephalus theobaldi orientalis* Wang, Papenfuss et Zeng *In* Wang, Zeng, Fang, Wu, Papenfuss et Macey, 1999.

*Name-bearing type.* Same as for *Phrynocephalus theobaldi orientalis* Wang, Papenfuss et Zeng *In* Wang, Zeng, Fang, Wu, Papenfuss et Macey, 1999.

*Type locality.* Same as for *Phrynocephalus theobaldi orientalis* Wang, Papenfuss et Zeng *In* Wang, Zeng, Fang, Wu, Papenfuss et Macey, 1999.

*Proposed status of specific name.* Invalid name, junior subjective synonym of *Phrynocephalus theobaldi* Blyth, 1863.

**List of currently recognized taxa and synonyms for lizards of the genus *Phrynocephalus* Kaup, 1825**

The following list gives the provisional synonymies of the 37 species and subspecies that we tentatively recognize as valid in the genus *Phrynocephalus* as defined above. For each species, we give the complete current onymorph (Smith & Perez-Higareda, 1986) and a synonymy-chresonymy (Smith & Smith, 1973) that includes the first uses of all combinations and onymorphs that we have found in the literature. The following list is meant at being useful for future revisers of the genus *Phrynocephalus* or of parts of it. Such revisions will no doubt be followed by important changes in this list, which should be understood as a working tool rather than as a final result.

## Genus *Phrynocephalus* Kaup, 1825

*Phrynocephalus* Kaup, 1825: col. 590-591. Species typica: *Phrynocephalus caudivolvulus* (Pallas) by subsequent designation (Fitzinger, 1843).

*Megalochilus* Eichwald, 1831: 185. Species typica: "Lacert[a]. aurit[a]. Pallas" [= *Phrynocephalus mystaceus* (Pallas) by monotypy.

*Saccostoma* Fitzinger, 1843: 18, 87. Species typica: "Phrynocephalus auritus Fitz." [= *Phrynocephalus mystaceus* (Pallas)] by original designation.

*Helioscopus* Fitzinger, 1843: 18, 88. Species typica: "Phrynocephalus helioscopus Wagler" [= *Phrynocephalus helioscopus* (Pallas)] by original designation.

*Phrynosaurus* Fitzinger, 1843: 18, 88. Species typica: *Phrynocephalus Olivieri* Duméril et Bibron [= *Phrynocephalus scutellatus* (Olivier)] by original designation. Coined as the subgenus of *Helioscopus* Fitzinger.

**Distribution:** From southeastern Europe and Southwest Asia (including the Arabian Peninsula, northern India and Nepal) through Central and Middle Asia to China and Mongolia.

### *Phrynocephalus (Phrynocephalus) arabicus* Anderson, 1894

*Phrynocephalus arabicus* Anderson, 1894: 377. — Terra typica: "plateau of the Hadramut" [= Hadramawt, southwestern Arabia].

"*Phrynocephalus nejdensis*" Schmidt et Inger, 1957: 83 (*nomen nudum*).

*Phrynocephalus nejdensis* Haas, 1957: 68. — Terra typica: "Nafud, near Qana, North Nejd, WNW of Hail, Saudi Arabia".

*Phrynocephalus nejdensis macropeltis* Haas, 1957: 69. — Terra typica: "Dahran [Az Zahrān], Saudi Arabia" [approximately 26°17' N, 50°12' E].

Distribution: widely distributed on the Arabian Peninsula except the western and southern Jordan. Known from the Mesopotamian Plain in the vicinity of Ahwaz, Iran (Leviton *et al.*, 1992).

### *Phrynocephalus (Phrynocephalus) axillaris* Blanford, 1875

*Phrynocephalus axillaris* Blanford, 1875: 201. — Terra typica: "Eastern Turkestan around Yarkand" [= Shache, 38°25' N, 77°14' E, southern Xinjiang Uygur Autonomous Region, western China].

*Phrynocephalus koslowi* Bedriaga, "1905" 1906a: 162. — Terra typica: "Lük-Tschun (Tjan-Schan)" [= Lukchun or Lüqün, approximately 42°43' N, 89°41' E, Xinjiang Uygur Autonomous Region, China].

*Phrynocephalus axillaris* var. *idae* Bedriaga, "1905" 1906a: 168. — Terra typica restricta: "Nan-schan", Xinjiang Uygur Autonomous Region, China.

*Phrynocephalus axillaris* var. *murielis* Bedriaga, "1905" 1906a: 168. — Terra typica restricta: "Lükschun" [= Lukchun or Lüqün, approximately 42°43' N, 89°41' E, Xinjiang Uygur Autonomous Region, China].

*Phrynocephalus axillaris* var. *ericae* Bedriaga, "1905" 1906a: 168. — Terra typica restricta: "Lükschun" [= Lukchun or Lüqün, approximately 42°43' N, 89°41' E, Xinjiang Uygur Autonomous Region, China].

*Phrynocephalus axillaris* var. *Klemensi* Bedriaga, 1907: 163. — Terra typica restricta: "Turfan" [= Turpan County, Xinjiang Uygur Autonomous Region, China].

*Phrynocephalus axillaris* var. *maculata* Bedriaga, 1907: figure caption to the Table III, fig. 3; nec *Phrynocephalus maculatus* Anderson, 1872: 389. — Terra typica: "Tschetschen" [probably Qiemo Xian, Qarqan Xian, approximately 38°08' N, 85°32' E, Xinjiang Uygur Autonomous Region, China].

*Phrynocephalus koslovi* — Boulenger, 1910: 29 (unjustified emendation).

*Phrynocephalus axillaris* var. *idoe* — Nikolsky, 1915: 224 (unjustified emendation).

*Phrynocephalus axillaris* var. *erycae* — Nikolsky, 1915: 224 (unjustified emendation).

*Phrynocephalus kozlowi* — Nikolsky, 1915: 234 (unjustified emendation).

*Phrynocephalus nasatus* Golubev et Dunayev, 1995: 5. **syn. nov.** — Terra typica: "between the mountain pass of Topa-Duvan (Topa-Bell, Karaduvan Ridge; 41°34' N, 80°14' E), Kashgaria [Xinjiang Autonomous Region], West China".

**Distribution:** Xinjiang and Gansu Provinces, China (Zhao & Adler, 1993).

## ***Phrynocephalus (Phrynocephalus) clarkorum* Anderson et Leviton, 1967**

*Phrynocephalus clarkorum* Anderson et Leviton, 1967: 228. — Terra typica: “20 miles southeast of Kandahar, Afghanistan, 31°20' N, 65°50' E”.

**Distribution:** the Helmand and Argandab River systems of Afghanistan and Pakistan. Its presence in Iran has not been confirmed (Anderson, 1999).

## ***Phrynocephalus (Phrynocephalus) euptilopus* Alcock et Finn, "1896" 1897**

*Phrynocephalus euptilopus* Alcock et Finn, “1896” 1897: 556. — Terra typica: “near Darband, elevation 3000 feet”, [Balochistan Province, northwestern Pakistan].

*Phrynocephalus eptylopus* — Tsarevsky, 1929: 415 (unjustified emendation).

**Distribution:** known from Balochistan Province, northwestern Pakistan and from Helmand basin, Afghanistan (Leviton & Anderson, 1970).

## ***Phrynocephalus (Oreosaura) forsythii* Anderson, 1872**

*Phrynocephalus forsythii* Anderson, 1872: 390. — Terra typica: “Yarkand” [= Shache, 38°25' N, 77°14' E, southern Xinjiang Uygur Autonomous Region, western China].

*Phrynocephalus forsythi* — Blanford, 1878: 6 (unjustified emendation).

*Phrynocephalus theobaldi* var. *forsythii* — Boulenger, 1885: 374.

*Phrynocephalus theobaldi* var. *forsythi* — Zugmayer, 1909: 502 (unjustified emendation).

**Distribution:** Xinjiang Uygur Autonomous Region, China.

## ***Phrynocephalus (Phrynocephalus) golubewii* Shenbrot et Semenov, 1990**

*Phrynocephalus maculatus* — Bogdanov *et al.*, 1974: 304 (partim).

*Phrynocephalus golubewii* Shenbrot et Semenov, 1990: 154. — Terra typica: “vicinity of the Bami rail-road station”.

**Distribution:** known only from the vicinity of the type locality, Turkmenistan.

## ***Phrynocephalus (Phrynocephalus) guttatus* (Gmelin, 1789)**

*Lacerta guttata* Gmelin, 1789: 1078. — Terra typica restricta: vicinity of Atyrau (Gurjev), approximately 47° 06' N, 51° 54' E, Atyrau Province, north-western Kazakhstan.

*Agama guttata* — Daudin, 1802: 426.

*Lacerta caudivolvula* Pallas, [1814]: 27. — Terra typica restricta: vicinity of Atyrau (Gurjev), approximately 47° 06' N, 51° 54' E, Atyrau Province, north-western Kazakhstan.

*Agama caudivolvula* — Lichtenstein *In* Eversmann, 1823: 143 (partim).

*Agama caudivolvula* — Lichtenstein, 1823: 102.

*Phrynocephalus guttatus* — Kaup, 1825: col. 614.

*Phrynocephalus caudivolvulus* — Fitzinger, 1826: 48.

*Phrynocephalus caudivolvula* — Wagler, 1830: 144.

*Phrynocephalus caudevolvula* — Gray, 1831: 59 (*lapsus calami*).

*Phrynocephalus Pallasii* Gray, 1831: 59 (nomen novum pro *Lacerta caudivolvula* Pallas, [1814]).

*Phrynocephalus suschkini* Bedriaga *In* Nikolsky, 1905: 472. — Terra typica: “rechten Ufer des unteren Turgaï, der in den nördlich vom Aralsee liegenden Tschaklar-Tepis mündet” [= vicinity of the Chalkar Teniz Lake, Turgai Depression, central Kazakhstan].

*Phrynocephalus cavidolvulus* — Boulenger, 1910: 29 (*lapsus calami*).

*Phrynocephalus caudivolvulus* var. *moltschanovi* Nikolsky, 1913: 34. — Terra typica restricta: Bel-Tau mountain, near

the Amu-Darja river mouth, Uzbekistan.

*Phrynocephalus caudivolvulus caudivolvulus* — Nikolsky, 1915: 199.

*Phrynocephalus caudivolvulus moltschanowi* — Nikolsky, 1915: 201 (unjustified emendation).

*Phrynocephalus guttatus guttatus* — Mertens & Müller, 1940: 24.

*Phrynocephalus moltschanovi* — Semenov & Shenbrot, 1982: 1194.

*Phrynocephalus guttatus kalmykus* Badmaeva et Szczerbak, 1983: 34. — Terra typica: “Kalmynskaya ASSR, Khulkhuta village” [= Khulkhuta village, approximately 46°19' N, 46°20' E, Chernozemelskiy District, Kalmykia].

**Distribution:** from northwestern coast of Caspian Sea eastward to central Kazakhstan and Uzbekistan (isolated populations on the southern coast of Aral Sea in Karakolakistan).

### *Phrynocephalus (Phrynocephalus) guttatus alpherakii* Bedriaga In Nikolsky, 1905

*Phrynocephalus alpherakii* Bedriaga In Nikolsky, 1905: 470. — Terra typica restricta: Chorgos river [= Korgas river, tributary of the upper Ili River, western Xinjiang Uygur Autonomous Region, China].

*Phrynocephalus acutirostris* Bedriaga, 1907: 339. — Terra typica restricta: “bei Kuldja am Ili” [= Yining Shi, approximately 43°54' N, 81°18' E, western Xinjiang Uygur Autonomous Region, China].

*Phrynocephalus alpheraki* — Nikolsky, 1915: 213 (unjustified emendation).

*Phrynocephalus caudivolvulus alpherakii* — Tsarevsky, 1926: 212.

*Phrynocephalus versicolor paraskiwi* Semenov, Brushko, Shenbrot et Kubykin, 1987: 106. — Terra typica: “Ili river hollow, urochishe Ajakkalkan, Taldy-Kurgan Region, Kazakhstan”.

*Phrynocephalus versicolor paraskivi* — Shenbrot & Semenov, 1987: 269 (unjustified emendation).

*Phrynocephalus guttatus alpherakii* — Golubev, 1992: 37.

**Distribution:** the Ili River Hollow in Kazakhstan and China.

### *Phrynocephalus (Phrynocephalus) guttatus melanurus* Eichwald, 1831 comb. et stat. nov.

*Phrynocephalus melanurus* Eichwald, 1831: 186. — Terra typica restricta: Kyzylkum sands near the Kurchum village left side of the Bukhtarminskoje vodokhranilishe, Eastern Kazakhstan.

*Phrynocephalus caudivolvulus* var. *incerta* Bedriaga In Nikolsky, 1905: 475. — Terra typica restricta: “Kreis Wernoje” [= vicinity of Almaty city, approximately 43°17' N, 76°55' E, Kazakhstan].

*Phrynocephalus kuschakewitschi* Bedriaga In Nikolsky, 1905: 476. — Terra typica restricta: “Sergiopolsky okrug” [= now Ajaguz, approximately 47°55' N, 80°23' E, Semipalatinsk Region, Kazakhstan].

“*Phrynocephalus salenskii*” Bedriaga, “1905” 1906a: 167 (*nomen nudum*).

“*Phrynocephalus haeckeli*” Bedriaga, “1905” 1906a: 167 (*nomen nudum*).

“*Phrynocephalus isseli*” Bedriaga, “1905” 1906a: 167 (*nomen nudum*).

*Phrynocephalus bergi* Elpatjevsky, 1906 “1907”: 51. — Terra typica restricta: vicinity of the Malaykuduk village, Kazakhstan.

*Phrynocephalus Salenskyi* Bedriaga, 1907: 141, 213. — Terra typica restricta: “Urungu Fluss” [= Ulungur River, Xinjiang Uygur Autonomous Region, China].

*Phrynocephalus zalenskyi* — Bedriaga, 1907: 141, 148 (unjustified emendation).

*Phrynocephalus Isseli* Bedriaga, 1907: 229. - Terra typica: Desert in vicinity of Mt. Ssalburty (in Saur mountains of the Tarbagatay range, Xinjiang Uygur Autonomous Region), China.

*Phrynocephalus Haeckeli* Bedriaga, 1907: 237. — Terra typica: Desert in vicinity of Mt. Ssalburty (in Saur mountains of the Tarbagatay range), in the Tarbagatai (= Tacheng County) district, northern Xinjiang Uygur Autonomous Region, China.

*Phrynocephalus Arcellazzii* Bedriaga, 1907: 307. — Terra typica: “Gaschun, in der Nähe von Gutschen in der Dschungarei” [= Qitai, (44°00' N, 89°50' E), Junggar Basin, Xinjiang Uygur Autonomous Region, China].

*Phrynocephalus caudivolvulus* var. *ocellata* — Bedriaga, 1909: 367.

*Phrynocephalus Grum-Grzimailoi* Bedriaga, 1909: 420. **syn. nov.** — Terra typica restricta: “Gutschen” [= Qitai County, Xinjiang Uygur Autonomous Region, China].

*Phrynocephalus helioscopus levius* Kaščenko, 1909: 122. — Terra typica: “near the Karatalsky post in the Black Irtysh river valley” [= vicinity of the Karatal village, approximately 47°36' N, 85°10' E, Eastern Kazakhstan].

*Phrynocephalus helioscopus laevis* — Nikolsky, 1915: 185 (unjustified emendation).

*Phrynocephalus caudivolvulus ocellatus* — Nikolsky, 1915: 200.

*Phrynocephalus caudivolvulus incertus* — Nikolsky, 1915: 200.

*Phrynocephalus salenskii* — Nikolsky, 1915: 232 (unjustified emendation).  
*Phrynocephalus caudivolvulus kuschakewitschi* — Tsarevsky, 1926: 213.  
*Phrynocephalus bedrijagai* Tsarevsky, 1926: 214. — Terra typica restricta: Zaissan Lake region, Eastern Kazakhstan.  
*Phrynocephalus bedriagai* — Tsarevsky, 1929: 416 (unjustified emendation).  
*Phrynocephalus guttatus kuschakewitschi* — Terentjev & Chernov, 1949: 157.  
*Phrynocephalus albolineatus* K. Zhao, 1979: 113. syn. nov. - Terra typica: "45 kilometers south of Tacheng County, Xinjiang Uygur Autonomous Region, China; 584 m elevation".  
*Phrynocephalus guttatus salenski* — Mezhherin & Golubev, 1993: 60 (unjustified emendation).  
*Phrynocephalus grumgrzimalailoi* — Zhao, 1997: 28 (*lapsus calami*).

**Distribution:** from southern coast of Balkhash Lake in Kazakhstan eastward to North-Western China (Xinjiang Uygur Autonomous Region).

### ***Phrynocephalus (Phrynocephalus) guttatus salsatus Gorelov, Dunayev et Kotenko, 1995***

*Phrynocephalus guttatus salsatus* Gorelov, Dunayev et Kotenko In Golubev, Gorelov, Dunayev et Kotenko, 1995: 34. — Terra typica: "North Turkmeniya, salt hollow Kazakhlyshor between sands Kumsebshen and the chink of Ustjurt (40°17' N, 55°46' E)".

**Distribution:** known only from the type locality, Turkmenistan (Ananjeva *et al.*, 2004).

### ***Phrynocephalus (Phrynocephalus) helioscopus helioscopus (Pallas, 1776)***

*Lacerta helioscopa* Pallas, 1771: 457. — Terra typica: "In deserti australioris"; *Lacerta uralensis* Gmelin, 1789: 1073. — Terra typica: "in deserto Uralensi".  
*Agama helioscopa* — Daudin, 1802: 419.  
*Agama uralensis* — Daudin, 1802: 422.  
*Phrynocephalus uralensis* — Fitzinger, 1826: 47.  
*Phrynocephalus helioscopus* — Wagler, 1830: 186.  
*Phrynocephalus helioscopus helioscopus* — Mertens & Müller, 1940: 25.

**Distribution:** southeastern part of European Russia, Central Asian Republics, Kazakhstan (eastward to the Ili River valley) and Northern Iran (Gorgan region).

### ***Phrynocephalus (Phrynocephalus) helioscopus varius Eichwald, 1831 comb. et stat. nov.***

*Phrynocephalus varius* Eichwald, 1831: 186. — Terra typica: "Hab. in Sibiria australi, versus montes Altaicos"  
*Phrynocephalus nigricans* Eichwald, 1831: 186. — Terra typica: "Sibiria australi, versus montes Altaicos".  
*Phrynocephalus helioscopus* var. *Cameranoi* Bedriaga, 1907: 243. — Terra typica restricta: "Kuldscha" [= Yining Shi, approximately 43°54' N, 81°18' E, western Xinjiang Uygur Autonomous Region, China].  
*Phrynocephalus helioscopus* var. *saposhnikovi* Kaščenko, 1909: 122. — Terra typica: "steppe near the Karatalsky post in the Black Irtysh river valley" [= vicinity of the Karatal village, approximately 47°36' N, 85°10' E, Eastern Kazakhstan]; "the Emil river valley", Eastern Kazakhstan.  
*Phrynocephalus helioscopus orientalis* Bedriaga, 1912: 751. — Terra typica restricta: "Fl. Urungu" [= Ulungur River, Xinjiang Uygur Autonomous Region, China].  
*Phrynocephalus helioscopus saposchnikowi* — Nikolsky, 1915: 157 (unjustified emendation).  
*Phrynocephalus helioscopus cameranoi* — Nikolsky, 1915: 163.

**Distribution:** from Eastern Kazakhstan through Xinjiang Uygur Autonomous Region, China to western Mongolia.

### ***Phrynocephalus (Phrynocephalus) helioscopus saidalievi Sattorov, 1981***

*Phrynocephalus helioscopus saidalievi* Sattorov, 1981a: 73. — Terra typica: "vicinity of the Kanibadam village (Tajik part of the Fergana Valley)" [= Konibodom village, approximately 40°17' N, 70°25' E, Tajikistan].  
*Phrynocephalus saidalievi* — Eremchenko & Panfilov, 1999: 121.

**Distribution:** Ferghana Valley in Uzbekistan, Tadzhikistan and Kyrgyzstan.

***Phrynocephalus (Phrynocephalus) interscapularis interscapularis Lichtenstein, 1856***

"*P[hrynocephalus]. interscapularis*" — Fitzinger, 1826: 48 (*nomen nudum*).

*Phrynocephalus interscapularis* Lichtenstein, 1856: 12. — Terra typica: "Bucharei" [= Uzbekistan].

*Phrynocephalus interscapularis interscapularis* — Chernov, 1959: 77.

**Distribution:** Central Asian republics, north to the southeastern Ust Urt, Aral Sea, and Aral Kara-Kum Desert, east to the valley of the Syr-Darja River, the Karatau Ridge, spurs of the Tien Shan and Pamiro-Alai.

***Phrynocephalus (Phrynocephalus) interscapularis sogdianus Chernov, 1948***

*Phrynocephalus interscapularis sogdianus* Chernov, 1948: 135. — Terra typica: "Tajikistan, vicinity of the Pjandzh village" [approximately 37°14' N, 69°05' E].

*Phrynocephalus sogdianus* — Sokolovsky, 1975: 12.

**Distribution:** along the Pjandzh River Valley east to the Vakhsh Valley in Tadzhikistan and lowland northern Afghanistan.

***Phrynocephalus (Phrynocephalus) luteoguttatus Boulenger, 1887***

*Phrynocephalus luteoguttatus* Boulenger, 1887: 497. — Terra typica: "between Nushki and Helmand; Helmand, Afghanistan".

*Phrynocephalus luteo-guttatus* — Leviton, 1959: 461.

**Distribution:** Afghanistan in the Helmand River basin and Pakistan in the desert basins of the Chagai and Nushki districts and western Las Bela. It probably enters Sistan in eastern Iran, but no reliable records exist for Iran (Anderson, 1999).

***Phrynocephalus (Phrynocephalus) maculatus maculatus J. Anderson, 1872***

*Phrynocephalus maculatus* J. Anderson, 1872: 389. — Terra typica: "Awada, Shiraz, Persia"; corrected to Abadeh [31°10' N, 52°37' E; Fars Province, Iran], north of Shiraz, by Blanford (1876).

*Phrynocephalus spiniventris* Nikolsky, 1896: 370. — Terra typica: "Persia orientali" [= Eastern Iran].

*Phrynocephalus maculatus* var. *spiniventris* — Nikolsky, 1900: 392.

*Phrynocephalus maculatus maculatus* — Haas, 1957: 68.

**Distribution:** the Central Plateau of Iran east through southern Afghanistan and Baluchistan as far as Nushki, Pakistan (Anderson, 1999).

***Phrynocephalus (Phrynocephalus) maculatus longicaudatus Haas, 1957***

*Phrynocephalus maculatus longicaudatus* Haas, 1957: 67. — Terra typica: "Doha Dhalum, Saudi Arabia".

**Distribution:** along the Persian Gulf coast of Saudi Arabia, and may extend into both Iraq and south-western Iran (Anderson, 1999; Leviton *et al.*, 1992).

### *Phrynocephalus (Phrynocephalus) mystaceus mystaceus* (Pallas, 1776)

*Lacerta mystacea* Pallas, 1776: 702. — Terra typica restricta: Ryn Peski (Ryn Sands), Uralskaya Region, north-western Kazakhstan.

*Lacerta aurita* Pallas, 1776: Tab.V, fig.1.

*Lacerta lobata* Shaw, 1802: 244 (nomen novum pro *Lacerta aurita* Gmelin, 1789).

*Gekko auritus* — Latreille, 1801: 61.

*Agama aurita* — Daudin, 1802: 429.

*Agama mystacea* — Merrem, 1820: 53.

*Phrynocephalus auritus* — Fitzinger, 1826: 47.

*Phrynocephalus mystacia* — Kaup, 1827: col. 612 (*lapsus calami*).

*Phrynocephalus mystacius* — Kaup, 1827: col. 613 (*lapsus calami*).

*Phrynocephalus aurita* — Wagler, 1830: 144.

*Megalochilus auritus* — Eichwald, 1831: 185.

*Saccostoma auritum* — Fitzinger, 1843: 87.

*Phrynocephalus mystaceus* — Boettger, 1880: 260.

*Phrynocephalus mystaceus mystaceus* — Krassowsky, 1932: 227.

"*Phrynocephalus mystaceus mystaceus natio Dagestanica*" Krassowsky, 1932: 228. — Terra typica: "Petrowsk-Kaukasus" and "Sandhügel Sari-Kum bei Kumtor-Kala", both localities in Daghestan Autonomous Republic, Russia (*nomen illegitimum quia quadrinominale*).

*Megalochilus mystaceus dagestanica* Ananjeva, "1986" 1987: 11. — Terra typica: "Kumtorkala", approximately 42°59' N, 47°15' E, Daghestan Autonomous Republic, Russia.

**Distribution:** eastern part of Chechen Republic, Daghestan, Kalmykia and southern part of Astrakhan Region, eastward to the Volga-Ural Sands. Introduced to the Apsheron Peninsula, Azerbaijan (Ananjeva *et al.*, 2004).

### *Phrynocephalus (Phrynocephalus) mystaceus galli* Krassowsky, 1932

*Phrynocephalus mystaceus Galli* Krassowsky, 1932: 227. — Terra typica: "Aus Repeteka andetrifft" [= vicinity of Repetek station, approximately 38°35' N, 63°11' E, Lebapsky Region, Turkmenistan].

*Phrynocephalus mystaceus aurantiacocaudatus* Semenov et Shenbrot, 1990:79. — Terra typica: "Eastern Kazakhstan (Semirechije), 70 km NNW urochishe Ushtobe (45°50' N; 77°40' E)".

**Distribution:** the Transcaspian Region, northern and eastern coasts of the Caspian Sea, Turkmenistan, Uzbekistan, Kazakhstan, northeastern and eastern Iran and adjacent Afghanistan and Xinjiang, China (Ananjeva *et al.*, 2004).

### *Phrynocephalus (Phrynocephalus) ornatus ornatus* Boulenger, 1887

*Phrynocephalus ornatus* Boulenger, 1887: 496. — Terra typica: "between Nushki and Helmand, Baluchistan".

*Phrynocephalus ornatus ornatus* — Golubev, 1998: 165.

**Distribution:** Helmand River basin of Afghanistan and desert basins of Baluchistan, Pakistan (Anderson, 1999).

### *Phrynocephalus (Phrynocephalus) ornatus vindumi* Golubev, 1998

*Phrynocephalus ornatus vindumi* Golubev, 1998: 163. — Terra typica: "Iran, Khorasan Prov., 35 km. N of Gonabad on road to Torbat-E. Heydariyeh (ca. 34°49' N, 58°47' E), 850 m. elevation".

**Distribution:** eastern part of Kavir-i-Namak Desert (eastern Iran), along north-eastern slopes of Kelat (Qalat) Range and Kayen Mountains to Iranian-Afghanistan border (Golubev, 1998).

### *Phrynocephalus (Phrynocephalus) persicus* De Filippi, 1863

*Phrynocephalus persicus* De Filippi, 1863: 387. — Terra typica: "campagne deserte dall'Armenia fino a Teheran".

*Phrynocephalus helioscopus* var. *Horváthi* Méhely, 1894: 79. — Terra typica: "Aralich, am Fuße des Ararat" [= Aralik village, 39°52' N, 44°31' E, Idgir Province, Turkey].

*Phrynocephalus helioscopus horvathi* — Nikolsky, 1915: 159.

*Phrynocephalus horvathi* — Rostombekov, 1938: 12.

*Phrynocephalus helioscopus persicus* — Terentjev & Chernov, 1949: 150.

**Distribution:** northwestern and western parts of the Central Plateau of Iran, north through Azerbaijan to northeastern Turkey and the Transcaucasian republics (Armenia and Azerbaijan) ((Anderson, 1999)).

### *Phrynocephalus (Phrynocephalus) przewalskii* Strauch, 1876

*Phrynocephalus Przewalskii* Strauch, 1876: 10. — Terra typica: "deserto Alaschanico" [= Tengger Desert, Nei Mongol (Inner Mongolia) Autonomous Region, China].

*Phrynocephalus affinis* Strauch, 1876: 13. — Terra typica: "Ordos dicta" [= Ordos Desert, Nei Mongol (Inner Mongolia) Autonomous Region, China].

*Phrynocephalus frontalis* Strauch, 1876: 15. — Terra typica: "Ordos dicta" [= Ordos Desert, Nei Mongol (Inner Mongolia) Autonomous Region, China].

"*Phrynocephalus pewzowi*" Bedriaga, "1905" 1906a: 167 (nomen nudum).

"*Phrynocephalus steindachneri*" Bedriaga, "1905" 1906a: 167 (nomen nudum).

*Phrynocephalus Pewzowi* Bedriaga, 1907: 139, 173. — Terra typica: "vom Chekou am Hoang-ho" [= Ziko'u or Hsi-ku, now Zhugqu, approximately 33°48' N, 104°30' E, southeast Gansu Province, China].

*Phrynocephalus steindachneri* Bedriaga, 1907: 140. — Terra typica restricta: "Quellfluß des Edsin-gol [= Ruo River] am Nordrande des Nan-shan [= Nanshan mountains] bei Gao-Tai [= Gaotai, approximately 39°22' N, 99°48' E]", Gansu Province, China.

*Phrynocephalus ciliaris* Bedriaga, 1909: 297. — Terra typica restricta: "Edsin-gol [= Ruo Shui], which flows near Gao-tai and Sutschschou [= Jiuquan County, Gansu Province], into the Zsaj-jan-chaj lake [= Gaxun Nur, Nei Mongol (Inner Mongolia) Autonomous Region]", China.

*Phrynocephalus potanini* Bedriaga, 1909: 389. — Terra typica restricta: "Fluss Shan-Marin in Ordos" [= Ulan Muren, Ordos Desert, Nei Mongol (Inner Mongolia) Autonomous Region, China].

*Phrynocephalus carinilabris* Bedriaga, 1909: 412. — Terra typica restricta: "unterhalb von Chekou am Hoang-ho" [= Ziko'u or Hsikou, now Zhugqu, approximately 33°48' N, 104°30' E, southeast Gansu Province, China].

*Phrynocephalus birulai* Tsarevsky, 1927b: 304. — Terra typica restricta: Southern part of the Ala-Shan Desert [= Tengger Desert, Nei Mongol (Inner Mongolia) Autonomous Region, China].

*Phrynocephalus suschkinianus* Tsarevsky, 1927b: 304. — Terra typica restricta: "along Dangar-he river, eastern Nan-Shan" [= Huang Shui, tributary of upper Huang He, eastern Nanshan, border area of Gansu and Qinghai Provinces, China].

*Phrynocephalus carinatus* Tsarevsky, 1927b: 305. — Terra typica restricta: "along Dangar-he river, eastern Nan-Shan" [= Huang Shui, tributary of upper Huang He, eastern Nanshan, border area of Gansu and Qinghai Provinces, China].

*Phrynocephalus elegans* Tsarevsky, 1927b: 305. — Terra typica restricta: "Eastern Alashan [= Tengger Desert, Nei Mongol (Inner Mongolia) Autonomous Region], from Tingyuanying [= Dingyuanying, Nei Mongol] to Scharuzan-Sume [Ningxia Hui Autonomous Region]", China.

*Phrynocephalus parvulus* Tsarevsky, 1927b: 305. — Terra typica restricta: "Eastern Alashan [= Tengger Desert, Nei Mongol (Inner Mongolia) Autonomous Region], from Tingyuanying [= Dingyuanying, Nei Mongol] to Scharuzan-Sume [Ningxia Hui Autonomous Region]", China.

**Distribution:** Gansu, Ningxia, Shaanxi, Nei Mongol (Inner Mongolia), Hubei and Qinghai Provinces, China (Zhao & Adler, 1993).

### *Phrynocephalus (Oreosaura) putjatai* Bedriaga, 1909

*Phrynocephalus Putjatai* Bedriaga, 1907: 302. — Terra typica: "Gui-dui am Hoang-ho" [= Guide County (36°00' N, 101°40' E), southeast of Qinghai (Kuku-Nor) Lake, Qinghai Province, China].

*Phrynocephalus putiatae* — Tsarevsky, 1929: 419 (unjustified emendation).  
*Phrynocephalus putjaitai* — K. Zhao, 1997: 31 (unjustified emendation).  
*Phrynocephalus putjatia* — Wang *et al.*, 2002: 372 (unjustified emendation).

**Distribution:** known only from Guide County, Qinghai Province, China.

### ***Phrynocephalus (Phrynocephalus) raddei* Boettger, 1888**

*Phrynocephalus Raddei* Boettger, 1888: 260, 262. — Terra typica: "Perewalnaja an der transcaspischen Bahn" [= Perewalnaja railroad station, southwestern Turkmenistan].  
*Phrynocephalus raddei* var. *boettgeri* Bedriaga In Nikolsky, 1905: 468. — Terra typica: "Schirabad, Buchara orient." [= Sherabad, approximately 37°42' N, 67°04' E, southern Uzbekistan].  
*Phrynocephalus raddei* var. *zarudnyi* Nikolsky, 1915: 193. — Terra typica: "Kelif, Buchara orient." [= Kelif, approximately 37°20' N, 66°18' E, Turkmenistan].  
*Phrynocephalus raddei* var. *bilkewitschi* Nikolsky, 1915: 194. — Terra typica: Turkmenistan.  
*Phrynocephalus raddei boettgeri* — Nikolsky, 1915: 194.  
*Phrynocephalus reticulatus boettgeri* — Tsarevsky, 1926: 214.

**Distribution:** southern and southeastern Turkmenistan, southern Uzbekistan, southwestern Tajikistan and northern Afghanistan (Anderson, 1999; Ananjeva *et al.*, 2004).

### ***Phrynocephalus (Phrynocephalus) reticulatus reticulatus* Eichwald, 1831**

*Agama ocellata* Lichtenstein In Eversmann, 1823: 143. — Terra typica restricta (Golubev, 1991): central part of the Kyzylkum Desert to the north of Bukhara and to the south of Juz-kuduk, Uzbekistan.  
*Phrynocephalus reticulatus* Eichwald, 1831: 186. — Terra typica: "Hab. ad Oxum, pristinum amnem, in caspii maris litora orientali"; corrected to the Amu-Darja river by Golubev (1991).  
*Phrynocephalus nikolskii* Bedriaga In Nikolsky, 1905: 463. — Terra typica restricta: "Kizil-Kumy" [= Kyzyl-Kum Desert, Uzbekistan].  
*Phrynocephalus boulengeri* Bedriaga In Nikolsky, 1905: 466. — Terra typica restricta: "Karshi desert, SE from Bukhara", southern Uzbekistan.  
*Phrynocephalus caudivolvulus reticulatus* — Nikolsky, 1915: 199.  
*Phrynocephalus nikolskii boulengeri* — Nikolsky, 1915: 208 (partim).  
*Phrynocephalus reticulatus reticulatus* — Tsarevsky, 1926: 214.

**Distribution:** north-eastern Turkmenistan and adjacent regions of Uzbekistan.

### ***Phrynocephalus (Phrynocephalus) reticulatus bannikovi* Darevsky, Rustamov et Shammakov, 1976**

*Phrynocephalus reticulatus bannikovi* Darevsky, Rustamov et Shammakov, 1976: 114. — Terra typica: "Tuarkyr Mountains, north-western Turkmenistan".  
*Phrynocephalus bannikovi* — Lichnova, 1992: 7.

**Distribution:** restricted to the Krasnovodsky Peninsula, north-western Turkmenistan.

### ***Phrynocephalus (Oreosaura) roborowskii* Bedriaga, "1905" 1906**

"*Phrynocephalus roborowskii*" Przewalski, 1888: 165 (*nomen nudum*).  
*Phrynocephalus vlangalii* var. *roborowskii* Bedriaga, "1905" 1906a: 172. — Terra typica restricta: "Provinz Zaidam" [= Qaidam Basin, Qinghai Province, China].  
*Phrynocephalus roborowskii* — Peters, 1984: 46.

**Distribution:** Qaidam Basin, Qinghai Province, China.

### *Phrynocephalus (Phrynocephalus) rossikowi* Nikolsky, 1899

*Phrynocephalus rossikowi* Nikolsky, 1899a: 286. — Terra typica: "montibus Chen-tau in deserto Kisil-kum prope ad fl. Amu-darja" [= Khen-Tau Mountains near Nukus, Karakalpak Autonomous Region, Turkmenistan].  
*Phrynocephalus rossikowi relictus* Nikolsky, 1915: 169. — Terra typica: Kushkanatau Mountain in the Amu-Darja river mouth, Uzbekistan.  
*Phrynocephalus rossicowi* — Tsarevsky, 1927a: 24 (*lapsus calami*).  
*Phrynocephalus rossikovi* — Tsarevsky, 1930: 416 (*lapsus calami*).  
*Phrynocephalus rossikowi shammakowi* Szczerbak et Golubev, 1979: 81. — Terra typica: "20 km NE Sernyi Zavod village", central region of the Kara-Kum desert, Turkmenistan.

**Distribution:** Karakolpakistan, Khorezm and Tashauz Regions in Uzbekistan and Turkmenistan (Ananjeva *et al.*, 2004).

### *Phrynocephalus (Phrynocephalus) scutellatus* (Olivier, 1807)

*Agame scutellata* Olivier, 1807: 110 (incorrect original spelling). — Terra typica: "... au pied de la montagne (nommée Sophia ou Sophissar, en vue d'Ispahan)" [= Mt. Sophia, near Esfahan, Esfahan Province, Iran].  
*Phrynocephalus Olivieri* Duméril et Bibron, 1837: 517. — Terra typica: "... au pied de la montagne (nommée Sophia ou Sophissar, en vue d'Ispahan)" [= Mt. Sophia, near Esfahan, Esfahan Province, Iran].  
*Phrynocephalus Tickelii* Gray, 1845: 260. — Terra typica: "Afghanistan".  
*Phrynocephalus olivieri* var. *carinipes* Nikolsky, 1907: 273. — Terra typica: "Pudesch-Kupa", province uncertain, Iran.  
*Phrynocephalus olivieri* var. *brevipes* Nikolsky, 1907: 274. — Terra typica: "Naim-abad (Damysan) in Chorosano occident" [= Naim-Abad, 36°14' N, 54°39' E, Mazanderan Province, Iran].  
*Phrynocephalus scutellatus* — Moquard, 1910a: 13-15.  
*Phrynocephalus olivieri carinipes* — Nikolsky, 1915: 171.  
*Phrynocephalus olivieri brevipes* — Nikolsky, 1915: 172.

**Distribution:** Iran, southern Afghanistan and northern Baluchistan, Pakistan (Anderson, 1999).

### *Phrynocephalus (Phrynocephalus) strauchi* Nikolsky, 1899

*Phrynocephalus strauchi* Nikolsky, 1899b: 21. — Terra typica restricta: Khodzhent, 40°17' N, 69°37' E, northern Tajikistan.  
*Phrynocephalus reticulatus strauchi* — Terentjev & Chernov, 1949: 159.

**Distribution:** Ferghana Valley in Uzbekistan and Tadjikistan (Ananjeva *et al.*, 2004).

### *Phrynocephalus (Oreosaura) theobaldi* Blyth, 1863

*Phrynocephalus theobaldi* Blyth, 1863: 90. — Terra typica: "along lake Chomoriri" [= Tso Morari, in Ladakh, Jammu and Kashmir State, northern India].  
*Phrynocephalus stoliczkae* Steindachner, 1867: 23. — Terra typica: "Tshomoriri" [= Chomoriri or Tso Morari lake, in Ladakh, Jammu and Kashmir State, northern India]; "Indus-Tal, bei Nirda Rongo, nördlich vom Kloster Hanle".  
*Phrynocephalus Vlangalii* var. *Lidskii* Bedriaga, 1909: 479. — Terra typica restricta: Keria-Gebirge" [= Yutian Mountains, southern Xinjiang Uygur Autonomous Region — northern Xizang (Tibet) Autonomous Region, China].  
*Phrynocephalus erythrurus* Zugmayer, 1909: 504. — Terra typica: "Sagüs Kul, Nordwest-Tibet [Xizang Autonomous Region, China]".  
*Phrynocephalus stoliczkae* — Boulenger, 1910: 29 (*lapsus calami*).  
*Phrynocephalus lidskii* — Tsarevsky, 1927a: 25.  
*Phrynocephalus alticola* Peters, 1984: 58. **syn. nov.** — Terra typica: "Ruckchin = Rukchen, in der Landschaft Rupshu in Ladakh, ca. 90 km SES von Leh; abflussloses Hochtal zwischen 4000-500 m über NN" in Jammu and Kashmir State, India.

*Phrynocephalus zetangensis* Wang, Zeng et Wu *In* Wang, Zeng, Fang, Liu, Wu, Papenfuss et Macey, 1996: 27. **syn. nov.**  
— Terra typica: "Zetang, Xizang Autonomous Region, China; 3950 m" [approximately 29°13' N, 91°47' E].  
*Phrynocephalus theobaldi orientalis* Wang, Papenfuss et Zeng *In* Wang, Zeng, Fang, Wu, Papenfuss et Macey, 1999:  
181; nec *Phrynocephalus helioscopus* var. *orientalis* Bedriaga, 1912: 751. **syn. nov.** — Terra typica: "Lhasa, Xizang  
[Autonomous Region], China" [approximately 29°39' N, 91°07' E].  
*Phrynocephalus theobaldi lhasaensis* Barabanov, Ananjeva, Papenfuss et Wang, 2002: 80 (nomen novum pro *Phryno-*  
*cephalus theobaldi orientalis* Wang, Papenfuss et Zeng *In* Wang, Zeng, Fang, Wu, Papenfuss et Macey, 1999).

**Distribution:** Xinjiang and Xizang (Tibet), China, northern India (Jammu and Kashmir) and Nepal (Zhao & Adler, 1993).

### *Phrynocephalus (Phrynocephalus) versicolor versicolor* Strauch, 1876

*Phrynocephalus versicolor* Strauch, 1876: 18. — Terra typica: "deserto Alaschanico" [= Tengger Desert, Nei Mongol (Inner Mongolia) Autonomous Region, China].  
*Phrynocephalus guentheri* Bedriaga, "1905" 1906a: 168. — Terra typica: "vom Edsin-gol aus der zentralen Gobi" [= Ruo Shui, Nei Mongol (Inner Mongolia) Autonomous Region, China].  
"Phrynocephalus versicolor" var. *doriae* Bedriaga, "1905" 1906a: 171 (nomen nudum).  
*Phrynocephalus versicolor* var. *hispida* Bedriaga, 1909: 331. — Terra typica restricta: "Dschungaria orientalis" [= Junggar Basin, Xinjiang Uygur Autonomous Region, China].  
*Phrynocephalus versicolor* var. *Doriae* Bedriaga, 1909: 332. — Terra typica restricta: "See Ebi-nor" [= Ebinur Lake, Xinjiang Uygur Autonomous Region, China].  
*Phrynocephalus versicolor* var. *Siebenrocki* Bedriaga, 1909: 333. — Terra typica: "between Metschin-Ola [= Mieh-Ch'eng-O-La Shan, about 30 km northeast of Barkol] and Barkul town [= Barkol, approximately 43°55' N, 93°00' E, Barkol County]", Xinjiang Uygur Autonomous Region, China.  
*Phrynocephalus versicolor* var. *Bogdanowi* Bedriaga, 1909: 334. — Terra typica restricta: Galbyn-Gobi Desert, Mongolia.  
*Phrynocephalus Blanfordi* Bedriaga, 1909: 381. — Terra typica restricta: "Wüste am Nan-shan-Gebirge" [= Nanshan range along Qinghai-Gansu border, China].  
*Phrynocephalus versicolor versicolor* — Nikolsky, 1915: 188.  
*Phrynocephalus versicolor hispidus* — Nikolsky, 1915: 189.  
*Phrynocephalus versicolor doriae* — Nikolsky, 1915: 190.  
*Phrynocephalus versicolor siebenrocki* — Nikolsky, 1915: 191.  
*Phrynocephalus versicolor bogdanowi* — Nikolsky, 1915: 191.  
*Phrynocephalus rostralis* Tsarevsky, 1930: 216. — Terra typica: "100-200 km from Urga [Ulanbaatr] to Kalgan", Mongolia.  
"Phrynocephalus stejnegeri" Bannikov, 1958: 78 (nomen nudum).  
*Phrynocephalus immaculatus* K. Zhao, 1995: 47. **syn. nov.** — Terra typica: "Siziwang Qi (41.5 N, 111.7 E), Inner Mongolia [Autonomous Region], China".

**Distribution:** Xinjiang, Gansu, Ningxia, and Nei Mongol (Inner Mongolia), China and Mongolia (Zhao & Adler, 1993; Ananjeva *et al.*, 2004).

### *Phrynocephalus (Phrynocephalus) versicolor kulagini* Bedriaga, 1909

*Phrynocephalus versicolor* var. *Kulagini* Bedriaga, 1909: 329. — Terra typica restricta: Chirgis-nur Lake in northwestern Mongolia.  
*Phrynocephalus versicolor kulagini* — Nikolsky, 1915: 189.

**Distribution:** northwestern Mongolia and Tyva Autonomous Region, Russia.

### *Phrynocephalus (Oreosaura) vlangalii vlangalii* Strauch, 1876

*Phrynocephalus Vlangalii* Strauch, 1876: 20. — Terra typica: "Kuku-noor dictum" [= Qinghai Hu, Qinghai Province, China].

*Phrynocephalus vlangalii* var. *nanschanica* Bedriaga, "1905" 1906a: 172. — Terra typica restricta: "Nan-shan-Gebirge" [= Nanshan mountains, China].  
"Phrynocephalus vlangalii" var. *geckoides*" Bedriaga, "1905" 1906a: 172 (*nomen nudum*).  
"Phrynocephalus vlangalii" var. *grombtschewskii*" Bedriaga, "1905" 1906a: 172 (*nomen nudum*).  
*Phrynocephalus vlangalii* var. *nauscranica* — Boulenger, 1908: 29 (*lapsus calami*).  
*Phrynocephalus Vlangalii* var. *Grombtschewskii* Bedriaga, 1909: 463. — Terra typica restricta: "Dabsun-Gobi" [= Qaidam Basin, south of Qinghai Hu mountain, Qinghai Province, China].  
*Phrynocephalus Vlangalii* var. *geckoides* Bedriaga, 1909: 466. — Terra typica restricta: Estuary of the Tschurmyn River [probably Tschumar, or Qumar He, Qinghai Province], China.  
*Phrynocephalus Vlangalii* var. *parva* Bedriaga, 1909: 468. — Terra typica restricta: "Dytschu" [= Moron Us and Tuotuo rivers, Qinghai Province, China].  
*Phrynocephalus Vlangalii* var. *Pylzowi* Bedriaga, 1909: 471. — Terra typica restricta: "Hoang-ho-Quellgebiet", China.  
*Phrynocephalus Reldoe* Bedriaga, 1909: 495. — Terra typica: "Gomi" [= Balekun omi or Kyikug, near Gong He County (36°20' N, 100°60' E), south of Qinghai (Kuku-Nor) Lake, Qinghai Province, China].  
*Phrynocephalus vlaugalii* — Boulenger, 1910: 29 (*lapsus calami*).  
*Phrynocephalus geckoides* — Tsarevsky, 1927a: 25.  
*Phrynocephalus parvus* — Tsarevsky, 1927a: 25.  
*Phrynocephalus pylzowi* — Tsarevsky, 1927a: 25.  
*Phrynocephalus nanschanicus* — Tsarevsky, 1927a: 26.  
*Phrynocephalus grombtschewskii* — Tsarevsky, 1927a: 26.  
*Phrynocephalus reldoe* — Tsarevsky, 1927a: 26 (unjustified emendation).  
*Phrynocephalus parvus* subsp. *pylzowi* — Tsarevsky, 1927b: 304.

**Distribution:** Xinjiang, Gansu, Qinghai, and northwestern Sichuan Provinces, China (Zhao & Adler, 1993).

### ***Phrynocephalus (Oreosaura) vlangalii hongyuanensis Zhao, Jiang et Huang, 1980***

*Phrynocephalus vlangalii hongyuanensis* E. Zhao, Jiang et Huang In Jiang, Huang et Zhao, 1980: 178. — Terra typica: Waqên, Hongyuan County, 33°03'N; 102°37'E, Sichuan Province, China; 3500 m.  
*Phrynocephalus hongyuanensis* — Wang & Jiang, 1992: 111.

**Distribution:** Hongyuan County, Sichuan Province, China.

### **Conclusion**

These results are provisional, both at specific and supraspecific levels. Additional works, using various characters and methods, will be necessary to confirm or reject the validity of a number of these species, and many additional species clearly remain to be discovered and described in the whole range of this genus. The present work will provide clear nomenclatural bases for future works on the phylogeny and taxonomy of this difficult group.

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