

Key and checklist to the lizards of Pakistan (Reptilia: Squamata: Sauria)

Schlüssel und Checkliste der Eidechsen von Pakistan
(Reptilia: Squamata: Sauria)

MUHAMMAD SHARIF KHAN

KURZFASSUNG

In den vergangenen Jahren wurden der Liste der Eidechsen Pakistans verschiedene Taxa hinzugefügt, wobei die zugrundeliegenden Beschreibungen und Neunachweise weit über die herpetologische Literatur verstreut sind. Die vorliegende Arbeit stellt diese Informationen zusammen und liefert eine umfangreiche Bibliographie neuerer Publikationen über die Eidechsen von Pakistan.

ABSTRACT

During recent years several lizard taxa were added to the faunal list of Pakistan. Descriptions and new records are scattered in different publications in the herpetological literature. The present paper puts the information together, and provides a comprehensive list of recent publications on the lizards of Pakistan.

KEY WORDS

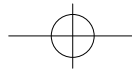
Reptilia: Squamata: Sauria; keys and checklist, lizards, Pakistan

INTRODUCTION

Our knowledge of sauria of the Indian subcontinent stems from GÜNTHER (1864), "The Reptiles of British India", and, subsequently, BOULENGER's (1890) volume in the "Fauna of British India" series. The saurian part of it was later updated in an independent volume in the series by SMITH (1935). After partition of the subcontinent, MINTON (1962, 1966) ushered in the modern era of the herpetological studies in Pakistan, followed by MERTENS' (1969, 1970, 1971, 1974) publications. Since then, extensive taxonomic work has been carried out on amphibians and reptiles of Pakistan, several new species have been described, new records made and the known ranges of several species have been extended, thus adding considerably to the faunal list of Pakistan. In the present paper the current state of our knowledge about lizards of Pakistan is presented. The information is gleaned from several recent publications: MERTENS (1954); KHAN, M. (1972, 1980a,b,

1985, 1986, 1987, 1988, 1989, 1991a,b,c, 1992, 1993a,b, 1997, 1999a,b, 2000a,b, 2001); BÖRNER (1974, 1976, 1981); KHAN, M. & MIRZA (1977); GOLUBEV & SZCZERBAK (1981); KHAN, M. & AHMED (1987); KHAN, M. & BAIG (1988, 1992); BAIG (1988, 1989, 1990, 1998); KHAN, M. & TASNIM (1990); SZCZERBAK (1991); AUFFENBERG & REHMAN (1995); BAIG & BÖHME (1996); KHAN, M. & KHAN, Z. (1997); RASTEGAR-POUYANI (1999); KHAN, M. & RÖSLER (1999); and KHAN, W. (unpublished).

The taxonomic categories are alphabetically arranged in the checklist, the scientific names of species are followed by more familiar common names in Urdu and their translation into English, so as to familiarize the taxa to the general public and facilitate exchange of information. The number of taxa represented in Pakistan is indicated between parentheses below the captions of the taxonomic categories.



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KEY AND CHECKLIST

Lizards (Suborder Sauria) are the dominant group of reptiles in Pakistan (KHAN, M. 1980). They belong to eight families: Agamidae, Chamaeleonidae, Eublepharidae, Gekkonidae, Lacertidae, Scincidae, Uromastycidae and Varanidae. The number of

species has steadily increased from MINTON's (1966) 65 species, MERTERNS (1969) 82, KHAN, M. (1980b) 88, to KHAN, M. (present report) 101 species and subspecies, from 35 genera.

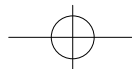
Suborder Sauria
(8 families, 35 genera, 95 species, 101 forms)

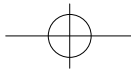
1	Head with small, irregularly arranged scales	2
-	Head with large, regularly arranged scales	7
2	Head compressed, with an elevated median casque; digits fused in two bundles	Chamaeleonidae
-	Head depressed, no casque; digits free	3
3	Head with granular scales; eye pupil vertical with pinholes when contracted	4
-	Head with flat scales; round pupil	5
4	Eyelids movable	Eublepharidae
-	Eyelids immovable	Gekkonidae
5	Head rectangular; nostrils very close to the tip of snout	6
-	Head elongated; nostrils close to eye or midway between eye and snout	Varanidae
6	Tail round elongated, with flat keeled scales	Agamidae
-	Tail flat with dorsal transversal rows of long spinous scales	Uromastycidae
7	Scale surface rough with a keel; tail much longer than body; digits long; ventral scales distinctly larger than dorsal scales	Lacertidae
-	Scales keeled or keelless, smooth; if keeled with multiple low keels; tail as long as or a little longer than body; digits short; dorsal and ventral body scales about equal in size	Scincidae

Family Agamidae
(6 genera, 23 species, 26 forms)

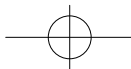
1	Body laterally compressed	2
-	Body dorsoventrally depressed	3
2	A distinct median dorsal row of pointed elevated scales, extending to tail	<i>Calotes versicolor</i>
-	A median dorsal row of indistinct elevated scales extending to midbody	<i>Japalura kumaonensis</i>
3	Tympanum distinct	4
-	Tympanum concealed	18
4	Tympanum large, superficial; fifth toe extends beyond second; caudal scales in distinct annuli	5
-	Tympanum small, deeply sunk, caudal scales irregular	14
5	Middorsum of body with several rows of homogeneous enlarged scales	6
-	Middorsum of body with several rows of heterogeneous enlarged scales	<i>Laudakia nuristanica</i>
6	Scales of dorsal rows smooth	7

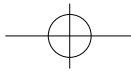
The additions to Lacertidae and Scincidae in the Sauria key must be placed in item 7 (not 1), otherwise it would be wrong.





-	Scales of dorsal rows keeled		8
7	A patch of strongly enlarged scales on flanks; male with a patch of callous abdominal scales	<i>Laudakia badakhshana</i>	
-	No patch of enlarged scales on flanks; male without callous abdominal scales	<i>Laudakia himalayana</i>	
8	Caudal scales small, 30 or more round the base of tail		9
-	Caudal scales large, 30 or less round the tail base		10
9	Head with smooth scales; 8 rows of median dorsal large scales	<i>Laudakia pakistanica</i>	
-	Head with keeled scales; 10 or more rows of median dorsal scales		11
10	Large dorsal scales, larger than ventrals; flanks with numerous enlarged scales	<i>Laudakia agrorensis</i>	
-	Largest dorsal scales, smaller than ventrals, flanks with few enlarged scales	<i>Laudakia tuberculata</i>	
11	Caudal segments distinct, with two whorls of scales; tail short, thick, not exceeding 1.5 times the body length	<i>Laudakia caucasia</i>	
-	Tail whorls one or three in a segment, tail long, slender, longer than 1.5 times the body		12
12	Enlarged dorsal in 12 or more rows; tail segment with three annuli; adult with spiny excrescences round ear opening		13
-	Enlarged dorsals in 10 or fewer rows; tail segments with single whorl; spiny excrescences around ear opening small or absent	<i>Laudakia melanura</i> <i>Laudakia nupta</i> <i>Laudakia fusca</i>	
13	A distinct transverse fold across nape		
-	No fold across nape		
14	Dorsal scales subequal in size, disposed in irregular rows		15
-	Larger dorsal scales about twice the size of the smaller scales and are irregular in arrangement		16
15	Tail exceeds body in length; males with callous preanal scales	<i>Trapelus agilis</i>	
-	Tail equals or is slightly less than body length; males without callous preanal scales	<i>Brachysaura minor</i>	
16	Enlarged dorsal scales rounded; about 100 scales round the midbody	<i>Trapelus rubrigularis</i>	
-	Enlarged dorsal scales pointed; fewer than 100 scales round the body		17
17	Largest dorsals about twice the size of smallest; dorsum with reddish or orange ocelli, with dark borders	<i>Trapelus megalonyx</i>	
-	Largest dorsal scales more than twice the size of smallest; dorsal ocelli absent or without dark borders	<i>Trapelus ruderatus</i>	
18	Dorsal scales markedly unequal in size		19
-	Dorsal scales subequal		20
19	Enlarged dorsal scales broad, nail-like, with free posterior borders; sides of head and neck without long spinous scales	<i>Phrynocephalus scutellatus</i>	
-	Enlarged dorsal scales without posterior free border; sides of head and neck with long spinose scales	<i>Phrynocephalus luteoguttatus</i>	
20	No spinose scales on head and neck		21
-	Spinose scales on head and neck present	<i>Phrynocephalus euptilopus</i>	
21	Nasal scales in contact with each other		22
-	Nasal scales not in contact with each other	<i>Phrynocephalus maculatus</i>	
22	A single elongated suborbital scale	<i>Phrynocephalus clarkorum</i>	
-	Two to three suborbital scales	<i>Phrynocephalus ornatus</i>	





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Genus *Brachysaura*
BLYTH, 1856
(1 species, 1 form)

Brachysaura minor (HARDWICKE & GRAY) (Short Tail Ground Agama: *Dum-ktta kirla*) - 1827 *Agama minor* HARDWICKE & GRAY, Zool. Jour., London 3: 218.

Type locality: Chittagong, Bangladesh.

Distribution: In Pakistan rare and spotty in distribution. Definite records are from Sindh and Punjab, District Jhang. Wide-ranging in the Indo-Gangetic plains; from Bangladesh through the Central and United Provinces of India; westward into the upper and lower Indus Valleys in Pakistan.

Genus *Calotes*
CUVIER, 1817
(1 species, 2 forms)

Calotes versicolor versicolor (DAUDIN) (Common Tree Lizard: *Girgit*) - 1802 *Agama versicolor* DAUDIN, Hist. Nat. Rept., Paris 3: 395.

Type locality: Pondicherry, India.

Distribution: Widely distributed in Pakistan especially in forested areas in the Indus Valley. In desertic habitat confined to the oases and vegetation growing along the water courses. In South-east Asia from Sumatra to southern China, throughout India, Sri Lanka, into Iran and southern Afghanistan.

Calotes versicolor farooqi AUFFENBERG & REHMAN - 1995 *Calotes versicolor farooqi* AUFFENBERG & REHMAN, Asiat. Herpetol. Res., Berkeley 6: 27.

Type locality: Alpine Punjab, Pakistan.

Distribution: Alpine Punjab, Pakistan.

Genus *Japalura*
GRAY, 1853
(1 species, 1 form)

Japalura kumaonensis (ANNANDALE) (Kumaon Agama: *Kumaon kirail*) - 1907 *Acanthosaura kumaonensis* ANNANDALE, Rec. Ind. Mus., Calcutta 1: 152.

Type locality: Naini Tal, western Himalayas, India.

Distribution: In the forests of hilly

tracts of north-eastern NWFP (North Western Frontier Province), Pakistan. Wide ranging in western Himalayas, India.

Genus *Laudakia*
GRAY, 1845
(10 species, 12 forms)

Laudakia agrorensis (STOLICZKA) (Agrore Valley Agama: *Agror wadi kirla*) - 1872 *Stellio agrorensis* STOLICZKA, Proc. Asiatic Soc. Bengal, Calcutta 1872 (July): 128.

Type locality: Sussel Pass, Agrore Valley, Hazara District, NWFP, Pakistan.

Distribution: In Pakistan widely distributed in Ooghi Valley, around Manshera and Abbottabad, extending down into the Jhelum Valley, and northward into Chitral. Widely distributed in the sub-Himalayas in northern India.

Laudakia badakhshana (ANDERSON & LEVITON) (Badkshshan Rock Agama: *Badkshshan kirla*) - 1969 *Agama badakhshana* ANDERSON & LEVITON, Proc. Calif. Acad. Sci., San Francisco (4th Ser.) 37 (2): 33.

Type locality: Mazar-i-Sharif, northern Afghanistan.

Distribution: Recorded from Sost and Gulmit, near Khunjrab Pass, in north-western Pakistan and northern Afghanistan.

Laudakia caucasia (EICHWALD) (Caucasian Rock Agama: *Kohkafka kirla*) - 1831 *Stellio caucasia* EICHWALD, Zool. Spec., Vilna 3: 20.

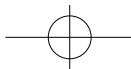
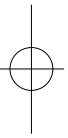
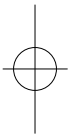
Type locality: Tiflis and Baku, Caucasus.

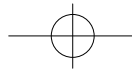
Distribution: In Pakistan known from Waziristan and northern Balochistan, between 1800 and 3000 m. Recorded from Caucasus extending eastward to Balochistan.

Laudakia fusca (BLANFORD) (Yellow-head Rock Agama: *Pela kirla*) - 1876 *Stellio nuptus* var. *fuscus* BLANFORD, Zool. East. Pers. Bound. Commis. 1870-1872., London 2: 319.

Type locality: Kalagan and Jalk, Balochistan, Iran.

Distribution: In Pakistan from Balochistan and south-western Sindh up to an elevation of 1.800 m. The author has seen it





in the Kalabag area in northwestern Punjab, Pakistan. Widely distributed in southern Iran.

Laudakia himalayana (STEINDACHNER) (Himalayan Agama: *Himalayaie kirla*) - 1869 *Stellio himalayanus* STEINDACHNER, Reise Novara, Rept., Vienna 1867: 22.

Type locality: Lei (Leh) and Kargil, Ladakh Province, Kashmir.

Distribution: Recorded from remote areas of northern Pakistan, between 3.000 and 3.200 m of elevation, from Gilgit and Chitral. Western Himalayas to Tajikistan.

Laudakia melanura BLYTH (Black Rock Agama: *Siaah kirla*) - 1854 *Laudakia melanura* BLYTH, J. Asiat. Soc. Bengal, Calcutta 23:738.

Type locality: Salt Range, Punjab, Pakistan.

Distribution: In Pakistan known from the Salt Range, Punjab, western hilly tracts of Sindh and Balochistan. Also collected from moderate elevations in eastern Iranian Balochistan.

Laudakia nupta (DE FILIPPI) (Spiny-head Rock Agama: *Khaar-sar kirla*) - 1843 *Agama nupta* DE FILIPPI, Giorn. Ist. Lombardo Sci. Lett. Art. Bibl. ital., Milano 6: 407.

Type locality: Persepolis, Iran.

Distribution: In Pakistan from Balochistan to south-western Sindh extending on to Waziristan in NWFP, and the Kalabag area in north-western Punjab, along the western bank of the Indus. Eastern Iraq, Iran, and Afghanistan.

Laudakia nuristanica ANDERSON & LEVITON (Nuristan Agama: *Nuristan kirla*) - 1969 *Agama nuristanica* ANDERSON & LEVITON, Proc. California Acad. Sci., San Francisco (4th Ser.) 37: 39.

Type locality: Kamdesh, eastern Afghanistan.

Distribution: Recorded from Ziarat, NWFP, Pakistan, at 500-600 m of elevation, and eastern Afghanistan.

Laudakia pakistanica pakistanica (BAIG) (North Pakistan Agama: *Pakistan kirla*) - 1989 *Agama pakistanica* BAIG, Bull. Kitakyushu Mus. Nat. Hist., Kitakyushu 9: 117-122.

Type locality: Ganglotgah, Gilgit, northern Pakistan.

Distribution: Widely distributed around Gilgit to Manshera, northeastern Pakistan, along the River Indus.

Laudakia pakistanica auffenbergi BAIG & BÖHME - 1996 *Laudakia pakistanica auffenbergi* BAIG & BÖHME, Russian J. Herpetol., Moscow 3: 1-10.

Type locality: Besham, District Swat, NWFP, Pakistan, elevation 700 m.

Distribution: Known from its type locality only.

Laudakia pakistanica khani BAIG & BÖHME 1996 - *Laudakia pakistanica khani* BAIG & BÖHME, Russian J. Herpetol., Moscow 3: 1-10.

Type locality: Hadar, Chilas, NWFP, Pakistan.

Distribution: Known from its type locality only.

Laudakia tuberculata (HARDWICKE & GRAY) (Blue Rock Agama: *Neela kirla*) - 1827 *Agama tuberculata* HARDWICKE & GRAY, Zool. J., London 3: 218.

Type locality: Bengal.

Distribution: In northern Pakistan at elevations of 1.500-2.500 m; eastern Afghanistan, and Kashmir up to Nepal.

Genus *Phrynocephalus*

KAUP, 1825

(6 species, 6 forms)

Phrynocephalus clarkorum S. ANDERSON & LEVITON (Afghan Toad Agama: *Afghani gauk-sar*) - 1967 *Phrynocephalus clarkorum* ANDERSON & LEVITON, Proc. Calif. Acad. Sci., San Francisco (4) 35: 228.

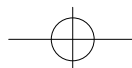
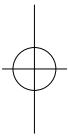
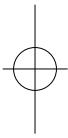
Type locality: 20 miles South of Kandahar, Afghanistan.

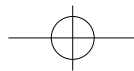
Distribution: In Pakistan in western Balochistan; southern Afghanistan.

Phrynocephalus euptilopus ALCOCK & FINN (Spotted Toad Agama: *Chittr gauk-sar*) - 1896 *Phrynocephalus euptilopus* ALCOCK & FINN, J. Asiat. Soc. Bengal, Calcutta 65: 556.

Type locality: Darband, 900 m, northern Balochistan.

Distribution: In Pakistan from Dar-





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band, western Balochistan, along the Afghanistan border, at an elevation of 900 m.

Phrynocephalus luteoguttatus BOULENGER (Yellow-speckled Toad Agama: *Peela goak-sar*) - 1887 *Phrynocephalus luteoguttatus* BOULENGER, Cat. Liz. Brit. Mus., London 3: 497.

Type locality: Between Nushki and Helmand, along the Afghanistan-Pakistan border.

Distribution: In Pakistan from western Balochistan around Nushki, southward to Las Bela, southern Afghanistan and western Iran.

Phrynocephalus maculatus J. ANDERSON (Whip-tail Toad Agama: *Lambi-dum gauk-sar*) - 1872 *Phrynocephalus maculatus* J. ANDERSON, Proc. zool. Soc., London 1872: 389.

Type locality: Awada, Shiraz, Iran.

Distribution: Western Balochistan, Pakistan, Afghanistan, Iran, Iraq, south as far as Arabia.

Phrynocephalus ornatus BOULENGER (Striped Toad Agama: *Daharidar gauk-sar*) - 1887 *Phrynocephalus ornatus* BOULENGER, Cat. Liz. Brit. Mus., London 3: 496.

Type locality: Between Nushki and Helmand, at the Balochistan and Afghanistan border.

Distribution: In Pakistan from the Chagai Desert to Las Bela; north-western Afghanistan to south-eastern Iran.

Phrynocephalus scutellatus OLIVIER (Banded Toad Agama: *Pattay-dar gauk-sar*) - 1807 *Phrynocephalus scutellatus* OLIVIER, Voy. Emp. Otthoman, Paris 3: 110.

Type locality: Ispahan, Iran.

Distribution: From the Balochistan desert in Pakistan, to desert basins of Iran, Afghanistan.

Genus *Trapelus*
CUVIER, 1816
(4 species, 4 forms)

Trapelus agilis pakistanensis RASTEGAR-POUYANI - 1999 *Trapelus agilis pakistanensis* RASTEGAR-POUYANI, Asiatic Herpetol. Res., Berkeley 8: 90-101.

Type locality: Kirthar Range, south-eastern Balochistan, Pakistan.

Distribution: Known from southern Punjab, Sindh and southern Balochistan.

Trapelus megalonyx GÜNTHER (Ocellate Ground Agama: *Patta korrh-kirla*) - 1864 *Trapelus megalonyx* GÜNTHER, Rept. Brit. Ind., London 159.

Type locality: Afghanistan.

Distribution: Balochistan, Sindh and Cholistan Desert in Punjab, Pakistan, collected up to an elevation of 1,800 m. From southern Afghanistan to Iran.

Trapelus rubrigularis BLANFORD (Red-throat Ground Agama: *Surakh-gani korrh-kirla*) - 1876 *Trapelus rubrigularis* BLANFORD, Proc. Asiatic Soc. Bengal, Calcutta 1875: 233.

Type locality: Kirthar Range, western Sindh, Pakistan.

Distribution: Recorded from lower Sindh and coastal Balochistan, Pakistan.

Trapelus ruderatus baluchianus (SMITH) (Spotted Ground Agama: *Chittra korrh-kirla*) - 1935 *Agama ruderata baluchiana* SMITH, Faun. Brit. Ind., London 2: 223.

Type locality: Quetta District, Balochistan, Pakistan.

Distribution: In Pakistan known from Quetta and Sibi Districts in Balochistan.

Family *Chamaeleonidae*
(1 genus, 1 species, 1 form)

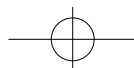
Genus *Chamaeleo*
LAURENTI, 1768
(1 species, 1 form)

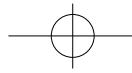
Chamaeleo zeylanicus LAURENTI (Casque Lizard: *Taj-sar girgit*) - 1768 *Cha-*

maeleo zeylanicus LAURENTI Syn. Rept., Vienna: 46.

Type locality: By inference, Sri Lanka.

Distribution: Extends into southeastern Sindh in Pakistan, where it is rare and local. DANIEL's (1983) statement about





extension of this species up to Peshawar is parts of peninsular India and Sri Lanka.
highly exaggerated. Found in the wooded

Family *E u b l e p h a r i d a e*
(1 genus, 1 species, 1 form)

Genus *Eublepharis*
GRAY, 1827
(1 species, 1 form)

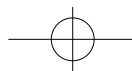
Type locality: Salt Range, Punjab,
Pakistan.

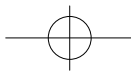
Distribution: In Pakistan it has been
recorded from Azad Kashmir, NWFP, north-
ern Punjab, Balochistan and lower Sindh. Its
range extends from Rajputana and Khan-
desh District of India.

Eublepharis macularius (BLYTH) (Fat-
tail Gecko: *Khin-khin*, *Korrh kirly*) - 1854
Cyrtodactylus macularius BLYTH, J. Asiatic
Soc. Bengal, Calcutta 23: 737-38.

Family *G e k k o n i d a e*
(13 genera, 37 species, 39 forms)

1	Digits dilated		2
-	Digits not dilated		10
2	Dilated part of the digit confined to the terminal phalanx	<i>Ptyodactylus homolepis</i>	
-	Dilated part of the digit extends along the whole digit		3
3	Tail swollen, covered with large flat imbricate scales; subdigital lamellae undivided	<i>Teratolepis fasciata</i>	
-	Subdigital lamellae divided		4
4	Dorsum with keeled enlarged tubercles, arranged in regular rows		5
-	Dorsum with hemispherical keelless tubercles irregularly arranged or absent		8
5	Dorsal pattern of clearly defined broad dark saddles	<i>Hemidactylus triedrus</i>	
-	Dorsal pattern of small spots, or uniformly coloured		6
6	Six to 10 lamellae under 4th toe, males with preanal and femoral pores	<i>Hemidactylus brooki</i>	
-	Nine to 15 lamellae under 4th toe; males with preanal pores only		7
7	Eleven to 15 lamellae under 4th toe; 6 to 9 preanal pores	<i>Hemidactylus persicus</i>	
-	Nine to 12 lamellae under 4th toe; 4 to 6 preanal pores	<i>Hemidactylus turcicus</i>	
8	Inner toe less than half the length of second toe; a continuous series of 23 to 33 preano-femoral pores	<i>Hemidactylus frenatus</i>	
-	Inner toe more than half the length of second toe; preanal and femoral pores separated by at least six scales		9
9	Dorsum with tubercles; 20 or more femoral pores; 12 or fewer lamellae under 4th toe	<i>Hemidactylus leschenaultii</i>	
-	No dorsal tubercles; femoral pores 15 or less; 12 to 15 lamellae under 4th toe	<i>Hemidactylus flaviviridis</i>	
10	Digits straight		11
-	Digits angularly bent between last and penultimate phalanx		16
11	Toes fringed on sides with pointed flexible long scales		12
-	Toes not fringed so	<i>Bunopus tuberculatus</i>	
12	Several series of large, thin scales on tail dorsum; habitus robust		13
-	Tail dorsum with small scales; habitus slender		14

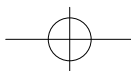
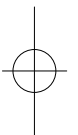


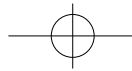


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13	Body with large cycloid scales, 30 to 35 round midbody	<i>Teratoscincus scincus</i>	
-	Body scales small, 100 or more round midbody	<i>Teratoscincus microlepis</i>	
14	Unregenerated tail shorter than body;		
-	in male fewer than five preanal pores	<i>Crossobamon orientalis</i>	
-	Tail longer than body; preanal pores six or more		15
15	Dorsum with numerous tubercles;		
-	dorsal pattern of transverse bands	<i>Crossobamon lumsdenii</i>	
-	Few or no dorsal tubercles;		
-	dorsal pattern of longitudinal stripes	<i>Crossobamon maynardii</i>	
16	Body and tail depressed; tail longer than body		19
-	Body and tail cylindrical, equal or subequal in length		17
17	Three nasal scales; dorsal pattern of transverse bands		
-	which are much narrower than interspaces, tending to		
-	break in spots on sides	<i>Cyrtodactylus mintoni</i>	
-	Two nasal scales; dorsal pattern of transverse bands,		
-	band as broad or broader than interspaces		18
18	Dorsal bands broader than interspaces;		
-	mid-ventrals 85 to 162	<i>Cyrtodactylus dattanensis</i>	
-	Dorsal bands breaking into a reticulum;		
-	mid-ventrals 194 to 205	<i>Cyrtodactylus battalensis</i>	
19	Tail with even taper; limbs small,		
-	heel not reaching axilla		22
-	Tail tapering abruptly; limbs long and slender;		
-	heels reaching axilla or beyond		20
20	Nasal scales strongly projecting		
-	vertically carrying naris at higher level	<i>Rhinogecko misonnei</i>	
-	Nasal scales not as above		21
21	A row of enlarged scales under the thigh;		
-	tail longer than snout-vent length	<i>Agamura femoralis</i>	
-	No enlarged scales under thighs; tail		
-	shorter than snout-vent length	<i>Agamura persica</i>	
22	Body non tuberculated		23
-	Body tuberculated		24
23	Internasals not differentiated from surrounding scales;		
-	four scales border naris	<i>Tropicolotes depressus</i>	
-	Internasals well differentiated, followed by a second		
-	pair of large scales; 5 scales border naris	<i>Tropicolotes persicus</i>	
24	Trihedral tubercles on body and tail;		
-	body moderately depressed		25
-	Trihedral tubercles on tail only; body much depressed		31
25	Interspaces between tubercles much smaller		
-	than size of the tubercles		26
-	Interspaces as large or larger than size of the tubercles		27
26	Interorbital scales more than 14; dorsal tubercles		
-	often in contact with each other; mid-ventrals		
-	more than 120; snout-vent length less than 48 mm	<i>Cyrtopodion montiumsalsorum</i>	
-	Interorbital scales less than 14; dorsal tubercles		
-	always separated by 1 to 3 granular imbricate scales;		
-	midventral scales less than 120; snout-vent length		
-	more than 50 mm	<i>Cyrtopodion kohsulaimanai</i>	
27	Two whorls of subcaudals to a caudal segment		28
-	Three whorls of subcaudals to a caudal segment	<i>Cyrtopodion agamuroides</i>	
28	Subcaudals small, as broad as long, in two rows	<i>Cyrtopodion kachhense</i>	
-	Subcaudals broader than long, in a single row		29





29	Scales across mid-abdomen less than 25	<i>Cyrtopodion scabrum</i>
-	Scales across mid-abdomen more than 25	30
30	25-33 scales across mid-abdomen	<i>Cyrtopodion potoharensis</i>
-	30-40 scales around mid-abdomen	<i>Cyrtopodion watsoni</i>
31	Caudal tubercles trihedral, arising from last annulus of caudal segment	32
-	Caudal tubercles non-trihedral, arising from center of caudal segment	35
32	Only preanal pores present in males	33
-	Preanal and femoral pores present in males	34
33	Flat dorsal tubercles keeled	<i>Tenuidactylus indusoani</i>
-	Dorsal tubercles feebly keeled or keelless	<i>Tenuidactylus fortmunroi</i>
34	16-18 scales across mid-abdomen; 92-106 midventral scales	<i>Tenuidactylus rhodocaudus</i>
-	21-25 scales across mid-abdomen; 102-132 midventral scales	<i>Tenuidactylus rohtasfortai</i>
35	Dorsal tubercles round with raised center	<i>Mesodactylus walli</i>
-	Dorsal tubercles flat, with or without a keel	36
36	Number of mid-ventrals 158-171	<i>Mesodactylus baturensis</i>
-	Number of mid-ventrals 109	<i>Mesodactylus boehmei</i>

Genus *Agamura*
BLANFORD, 1874
(2 species, 2 forms)

Agamura femoralis SMITH (Pointed-tail Spider Gecko: *Nook-dum makra-chapkali*) - 1933 *Agamura femoralis* SMITH, Rec. Indian Mus., Calcutta 35: 17.

Type locality: Kharan, Balochistan.

Distribution: It has been reported from Kharan and Chagai Deserts, close to the rocky outcrops.

Agamura persica (A. DUMERIL) (Persian Spider Gecko: *Irani makra-chapkali*) - 1856 *Gymnodactylus persicus* A. DUMERIL, Arch. Mus. Hist. Nat., Paris 8: 481.

Type locality: Iran (Persia).

Distribution: From Karachi northward to the Waziristan Hills, between 25 and 100 m of elevation, and Iran.

Genus *Bunopus*
BLANFORD, 1874
(1 species, 1 form)

Bunopus tuberculatus BLANFORD (Tuberculated Desert Gecko: *Khurdari reg chapkali*) - 1874 *Bunopus tuberculatus* BLANFORD, Ann. Mag. Nat. Hist., London (4) 13: 454.

Type locality: Persian Balochistan.

Distribution: Common in Balochistan, to southern Sindh, Las Bela, and around Hyderabad, below 2000 m. It ranges from Syria, Iraq, eastern Arabia, southern Iran, southern Afghanistan.

Genus *Crossobamon*
BOETTGER, 1888
(3 species, 3 forms)

Crossobamon lumsdenii (BOULENGER) (Smooth-bellied Sand Gecko: *Naram kanghi-ungusht*) - 1887 *Stenodactylus lumsdenii* BOULENGER, Cat. Liz. Brit. Mus., London 3: 479.

Type locality: Between Nushki and Helmand, northern Balochistan, Pakistan.

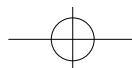
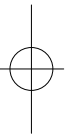
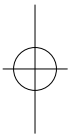
Distribution: Recorded in Pakistan between Nushki and Helmand in northern Balochistan.

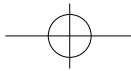
Crossobamon maynardi (SMITH) (Striped Sand Gecko: *Dharidar kanghi-ungusht*) - 1933 *Stenodactylus maynardi* SMITH, Rec. Ind. Mus., Calcutta 35: 18.

Type locality: Balochistan, near the Afghanistan border.

Distribution: The Striped Sand Gecko has been collected from north-western Balochistan.

Crossobamon orientalis (BLANFORD) (Yellow Tailed Sand Gecko: *Pelee-dum*





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kanghi-ungusht) - 1876 *Stenodactylus orientalis* BLANFORD, J. Asiatic Soc. Bengal, Calcutta (2) 45: 21.

Type locality: Rohri and Shikarpur Districts, upper Sindh, Pakistan.

Distribution: Widely distributed throughout the Thar, Cholistan, and Thal Deserts; moreover, it has been recorded from Sindh Delta and Las Bela, southern Balochistan southeastern Iran and Afghanistan.

Genus *Cyrtodactylus*

GRAY, 1827

(3 species, 3 forms)

Cyrtodactylus battalensis KHAN (Reti-
culate Plump-bodied Gecko: *Jal-dar goal-
jasm*) - 1993 *Cyrtodactylus battalensis*
KHAN, Pakistan J. Zool., Lahore 25 (1): 67-
73.

Type locality: Batgram, Manshera, NWFP, Pakistan.

Distribution: Known only from its type locality, Batgram, District Manshera, NWFP, Pakistan.

Cyrtodactylus dattanensis (KHAN) (Plump Banded Gecko: *Datta goal-jasm*) - 1980 *Gymnodactylus dattanensis* KHAN, Pakistan J. Zool., Lahore 12 (1): 11-16.

Type locality: Datta, Manshera, NWFP, Pakistan.

Distribution: Widely distributed in alpine Punjab and eastern north-western Frontier Province, Pakistan.

Cyrtodactylus mintoni (GOLUBEV & SZCZERBAK) (Plump Swati Gecko: *Swati goal-jasm*) - 1981 *Gymnodactylus mintoni* GOLUBEV & SZCZERBAK, Vestn. Zool., Kiev 1981 (3): 40-50.

Type locality: Udigram, Swat, NWFP, Pakistan.

Distribution: This gecko is known only from the type specimen.

Genus *Cyrtopodion*

FITZINGER, 1843

(7 species, 8 forms)

Cyrtopodion agamuroides (NOKOLSKY) (Makran Spider Gecko: *Makrani makra chapkali*) - 1900 *Gymnodactylus agamuroides* NOKOLSKY, Ann. Mus. Zool., St.

Petersburg 4: 384.

Type locality: Pensarch (Pendzhara), eastern Kirman, Iran.

Distribution: Makran coast and Las Bela, Kirman, Sistan, and Baluchistan Province of Iran.

Cyrtopodion kachhense kachhense (STOLICZKA) (Kachh Spotted Ground-Gecko: *Kachh chapkali*) - 1872 *Gymnodactylus kachhense* STOLICZKA, Proc. Asiatic Soc. Bengal, Calcutta (1): 79.

Type locality: Kutch, southwestern Sindh, Pakistan.

Distribution: The Spotted Ground Gecko has been collected from most of Kutch, coastal Sindh, and Las Bela, Pakistan.

Cyrtopodion kachhense ingoldbyi KHAN (Western Rock Gecko: *Chattani chapkali*) - 1923 *Gymnodactylus ingoldbyi* PROCUTOR, J. Bombay Nat. Hist. Soc. 29: 121. 1997 *Cyrtopodion kachhense ingoldbyi* KHAN, Russian J. Herpetol., Moscow 4: 83-88.

Type locality: Ladha, Dera Ismael Khan, southern NWFP, Pakistan.

Distribution: Widely distributed in the hills along Khar-Rakhni-Quetta road, about 10 km west of Fort Munro.

Cyrtopodion kohsulaimanai (KHAN) (Sulaiman Range Gecko: *Koh-Sulaimani chapkali*) - 1991 *Tenuidactylus kohsulaimanai* KHAN, J. Herpetol., St. Louis 25: 199-204.

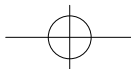
Type locality: Sakhisarwar village, Dera Ghazi Khan District, north-western Punjab, Pakistan.

Distribution: This gecko is known from two localities, Sakhisarwar and Rakhni Gorge, along Dera Ghazi Khan-Fort Munro road, in District Dera Ghazi Khan, northwestern Punjab, Pakistan.

Cyrtopodion montiumsalsorum (ANNANDALE) (Salt Range Ground-Gecko: *Koh-namak chapkali*) - 1913 *Gymnodactylus montiumsalsorum* ANNANDALE, Rec. Indian Mus., Calcutta 9: 309-326.

Type locality: Salt Range, Punjab, Pakistan.

Distribution: Salt Range, Punjab, Pakistan.



Cyrtopodion potoharensis KHAN (Potohar Gecko: *Potohari chapkali*) - 2001 *Cyrtopodion potoharensis* KHAN, Pakistan J. Zool., Lahore 33 (1): 15-16.

Type locality: Nazampur, District Attock, northern Punjab, Pakistan.

Distribution: The Potwar Gecko was collected from different localities in central Potwar Plateau, Salt Range, Punjab.

Cyrtopodion scabrum (HEYDEN) (Common Tuberculate Ground-Gecko: *Toorani chapkali*) - 1827 *Stenodactylus scaber* HEYDEN in RÜPPELL, Atlas North Afr. Rept., Frankfurt a. M.: 15.

Type locality: Arabia.

Distribution: In Pakistan, it has been reported from the upper and lower Indus Valleys, and along the eastern edge of the Thar Desert. It is widely distributed in Balochistan and Waziristan. Wide-ranging, from Arabia, Egypt to Rajputana, India.

Cyrtopodion watsoni (MURRAY) (Northern Spotted Ground-Gecko: *Shamali chapkali*) - 1892 *Gymnodactylus watsoni* MURRAY, Zool. Belooch., London and Bombay 68.

Type locality: Quetta, Balochistan, Pakistan.

Distribution: Reported from Salt Range, Punjab; Manshera, NWFP; and Quetta, Balochistan, Pakistan.

Genus *Hemidactylus*
OKEN, 1817
(7 species, 7 forms)

Hemidactylus brookii GRAY (Spotted Barn Gecko: *Barani chapkali*) - 1845 *Hemidactylus brookii* GRAY, Cat. Liz. Brit. Mus. London 153.

Type locality: Borneo, southeast Asia.

Distribution: Common gecko in the plains, avoiding higher northern mountains, and extends into the peripheral humid areas around deserts and oases. Widely ranges in Southeast Asia, from Borneo, China, through tropical and subtropical Asia, extending through India, Pakistan and the Middle East to northern Africa. There are reports of it from the West Indies.

Hemidactylus flaviviridis RÜPPELL (Yellow-belly Common House-Gecko: *Ghar chapkali*) - 1835 *Hemidactylus flaviviridis* RÜPPELL, Neue Wirb. Faun. Abyss., Frankfurt a. M.: 18.

Type locality: Massaua Islands, Eritrea.

Distribution: Reported from throughout the plains below 1000 m, always in association with man. Wide ranging in the Palearctic Region, from the Red Sea to the coasts of Arabia and Iran, Pakistan, and India to Bangladesh. Human agency has played an important role in its wide distribution.

Hemidactylus frenatus SCHLEGEL (Waif Gecko: *Awara chapkali*) - 1836 *Hemidactylus frenatus* SCHLEGEL in DUMÉRIL & BIBRON, Erpet. Gén., Paris 3: 366.

Type locality: Java, Southeast Asia.

Distribution: Frequent along sea coast, has been collected from the lower Indus Delta. Pantropic species, coastal in distribution throughout subcontinent.

Hemidactylus leschenaultii DUMÉRIL & BIBRON (Tree-Bark Gecko: *Chaal chapkali*) - 1836 *Hemidactylus leschenaultii* DUMÉRIL & BIBRON, Erpet. Gén., Paris 3: 364.

Type locality: Sri Lanka.

Distribution: Recorded from various localities in the lower Indus Delta and Las Bela in southern Balochistan. Extends from Assam, Bangladesh, eastern and southern India, along the western coast, reaching the lower Sindh in Pakistan.

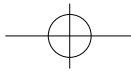
Hemidactylus persicus ANDERSON (Persian House Gecko: *Irani chapkali*) - 1872 *Hemidactylus persicus* ANDERSON, Proc. Zool. Soc., London: 1872: 378.

Type locality: Shiraz, Persia.

Distribution: Reported from the southern Potwar Plateau, in central Punjab, Pakistan. Common in lower Indus Valley and Balochistan coastal strip, extending up to Waziristan. From eastern Arabia, through southern Iran, to Rajasthan coast.

Hemidactylus triedrus (DAUDIN) (Blotched House Gecko: *Sahali chapkali*) - 1802 *Gecko triedrus* DAUDIN, Hist. Nat. Rept., Paris 155.

Type locality: Unknown.



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Distribution: Karachi, localities in lower Indus Delta. Sri Lanka, peninsular India.

Hemidactylus turcicus (LINNAEUS) (Mediterranean House Gecko: *Turk chapkali*) - 1758 *Lacerta turcica* LINNAEUS, Syst. Nat., Stockholm (Ed. 10) 1: 202.

Type locality: Asiatic Turkey.

Distribution: Along the seacoast of Karachi. Morocco to Egypt to Somalia, Kenya; coastal Mediterranean and Red Sea.

Genus *Mesodactylus*
SZCZERBAK & GOLUBEV, 1984
(3 species, 3 forms)

Mesodactylus baturensis (KHAN & BAIG) (Batura Glacier Gecko: *Batura chapkali*) - 1993 *Tenuidactylus baturensis* KHAN & BAIG, Pakistan J. Zool., Lahore 24 (4): 273-277. 2001 *Mesodactylus baturensis* KHAN, Pakistan J. Zool., Lahore 33 (1): 13-24.

Type locality: Passu and Khyber, Gilgit Agency, northern Pakistan.

Distribution: Known only from the type locality.

Mesodactylus boehmei (SZCZERBAK) - 1991 *Alsophylax (Altiphylax) boehmei* SZCZERBAK, Salamandra, Bonn 27: 53-57.

Type locality: Skardu, Ladakh, north-eastern Pakistan.

Distribution: Known only from the type locality.

Mesodactylus walli (INGOLDBY) (Chitral Gecko: *Chitral chapkali*) - 1922 *Gymnodactylus walli* INGOLDBY, J. Bombay Nat. Hist. Soc., Bombay 28: 1051. 2001 *Mesodactylus walli* KHAN, Pakistan J. Zool., Lahore 33 (1): 13-24.

Type locality: Drosh Fort, Chitral, NWFP, Pakistan.

Distribution: The gecko has been collected from Drosh Fort, Karakal village in Bumhoet Valley, and Ghariet village, Chitral, all in NWFP, Pakistan.

Genus *Ptyodactylus*
GOLDFUSS, 1820
(1 species, 1 form)

Ptyodactylus homolepis BLANFORD (Fan-toed Gecko: *Pankh-ungusht chapkali*)

- 1876 *Ptyodactylus homolepis* BLANFORD, J. Asiatic Soc. Bengal, Calcutta 45(2): 19.

Type locality: Mahar Division, Shikarpur District, north-western Sindh, Pakistan.

Distribution: There is no subsequent report of this gecko from Pakistan. It is yet known only from its type locality.

Genus *Rhinogecko*
DE WITTE, 1973
(1 species, 1 form)

Rhinogecko misonnei DE WITTE (Long-nosed Gecko: *Nakali chapkali*) - 1973 *Rhinogecko misonnei* DE WITTE, Bull. Inst. R. Sci. Nat. Belg., Bruxelles 49: 1.

Type locality: Dast-i-Lut Desert, Iran.

Distribution: Known from Dasht-i-Lut along the Iran-Pakistan border.

Genus *Tenuidactylus*
SZCZERBAK & GOLUBEV, 1984
(4 species, 4 forms)

Tenuidactylus fortmunroi KHAN (Fort Munro Sandstone Gecko: *Munro reg-sang chapkali*) - 1993 *Tenuidactylus fortmunroi* KHAN, Pakistan J. Zool., Lahore 25: 217-221.

Type locality: Khar Gardens, Fort Munro, District Dera Ghazi Khan, western Punjab, Pakistan.

Distribution: This gecko is known from Fort Munro and Khar village, in the northwestern Dera Ghazi Khan District, Punjab, Pakistan.

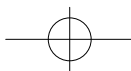
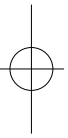
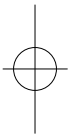
Tenuidactylus indusoani (KHAN) (Soan Gecko: *Soan reg-sang chapkali*) - 1988 *Cyrtodactylus indusoani* KHAN, J. Herpetol., Oxford 22: 241-243.

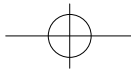
Type locality: Pirpeahai, Iskinderabad, District Mianwali, northwestern Punjab, Pakistan.

Distribution: The gecko is known from the northwestern border of the Salt Range, Punjab, Pakistan.

Tenuidactylus rhodocaudus BAIG (Red-tail Sandstone Gecko: *Surakh-dum reg-sang*) - 1998 *Tenuidactylus rhodocaudus* BAIG, Hamadryad, Madras 23: 127-132.

Type locality: Tanishpa, District Kila Saifullah, Balochistan.





Distribution: The gecko is known from its type locality.

Tenuidactylus rohtasfortai KHAN & TASNIM (Rohtas Gecko: *Rohtas reg-sang chapkali*) - 1990 *Tenuidactylus rohtasfortai* KHAN & TASNIM, *Herpetologica*, Lafayette 46: 142-148.

Type locality: Ahmadyyah Mosque, Goi Madan, Kotli, Azad Kashmir.

Distribution: *Tenuidactylus rohtasfortai* is a widely distributed species in alpine Punjab and southeastern Azad Kashmir. It extends into the hilly terrain of the Potwar Plateau, especially from Jhelum to Islamabad.

Genus *Teratolepis*
GÜNTHER, 1870
(1 species, 1 form)

Teratolepis fasciata (BLYTH) (Flat-tail Gecko: *Chapti-dum chapkali*) - 1853 *Homonota fasciata* BLYTH in JERDON, J. Asiatic Soc. Bengal, Calcutta 22: 468.

Type locality: Jaulna, Hyderabad Province, southern India.

Distribution: The gecko is recorded from different localities in the lower Indus Delta in Pakistan.

Genus *Teratoscincus*
STRAUCH, 1863
(2 species, 2 forms)

Teratoscincus microlepis NIKOLSKY (Baloch Sand Gecko: *Bloch reg-chapkali*) - 1899 *Teratoscincus microlepis* NIKOLSKY, *Ann. Mus. Zool. Acad. Sci. St. Petersburg*, 4: 145.

Type locality: Duz Abad, eastern Kirman, Iran.

Distribution: The gecko has been collected from Nushki and Kharan in Balochistan; collected westward to Dasht-i-Lut, near Kirman, Iran.

Teratoscincus scincus keyserlingii STRAUCH (Turkish Sand Gecko: *Turki reg-*

chapkali) - 1863 *Teratoscincus keyserlingii* STRAUCH, *Bull. Acad. Imp. Sci. St. Petersburg* 6: 477-480.

Type locality: Seri-Tschah, eastern Iran.

Distribution: Western Balochistan to the Caspian Sea to Tadjikistan.

Genus *Tropicolotes*
PETERS, 1880
(2 species, 3 forms)
[see SZCZERBAK & GOLUBEV (1996)
for this genus]

Tropicolotes depressus MINTON & J. A. ANDERSON (Mountain Dwarf Gecko: *Chattani chipolia*) - 1965 *Tropicolotes depressus* MINTON & J. ANDERSON, *Herpetologica*, Lafayette 21: 59.

Type locality: Kach, Quetta Division, Balochistan, Pakistan.

Distribution: Recorded from the hilly tracts north of Quetta, Balochistan.

Tropicolotes persicus persicus (NIKOLSKY) (Persian Banded Gecko: *Irani chipolia*) - 1903 *Alsophylax persicus* NIKOLSKY, *Ann. Zool. Mus. Imp. Acad. Sci., St. Petersburg* 8: 95.

Type locality: Vikus Dehak, Iranian Balochistan.

Distribution: Southeastern Sindh, Pakistan to south-western Iran.

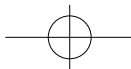
Tropicolotes persicus euphorbiacola MINTON, S. ANDERSON & J. A. ANDERSON (Sindhi Dwarf Gecko: *Sindhi chipolia*) - 1907 *Microgecko helenae* NIKOLSKY, *Ann. Mus. Zool. Acad. Sci., St. Petersburg* 10: 265. 1970 *Tropicolotes persicus euphorbiacola* MINTON, S. ANDERSON & J. A. ANDERSON, *Proc. California Acad. Sci., San Francisco* (ser. 4) 37 (9): 354.

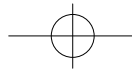
Type locality: Las Bela, Pakistan.

Distribution: This gecko has been reported from Las Bela, Balochistan and lower Sindh, Pakistan.

Family *Lacertidae*
(4 genera, 12 species, 12 forms)

1	Naris in contact with first supralabial	2
-	Naris not in contact with first supralabial	4





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2	Dorsals scarcely larger than laterals; usually seven light stripes on body; tail tip yellow	<i>Acanthodactylus micropholis</i>	
-	Dorsals much larger than laterals; usually six stripes on dorsum; tail tip blue, gray or pink		3
3	Median dorsals and laterals are of almost equal size; mid-dorsals 40 to 46 across mid-body; gulars 18 to 20	<i>Acanthodactylus blanfordii</i>	
-	Median dorsals distinctly larger than laterals, gulars 26 to 36	<i>Acanthodactylus cantoris</i>	
4	Eyelids immovable, forming spectacle; dorsals pointed, imbricate and keeled; no collar		5
-	Eyelids movable, lower with transparent disc; dorsals granular, subimbricate or juxtaposed; collar present		6
5	Head with rugose scales; 25 to 35 scales round midbody	<i>Ophisops jerdonii</i>	
-	Head scales smooth; 31 to 38 scales round the midbody	<i>Ophisops elegans</i>	
6	Ventrals in straight longitudinal rows, an occipital scale present		7
-	Ventrals in oblique longitudinal rows; occipital scale absent		8
7	Occipital scale in contact with interparietals; transparent scale in lower eyelid, edged with black	<i>Mesalina watsonana</i>	
-	Occipital scale not in contact with interparietals; transparent scale in lower eyelid not edged with black	<i>Mesalina brevirostris</i>	
8	A distinct fringe of pointed scales on the fourth toe		9
-	No fringe on the fourth toe		11
9	The fringe is only on the outer side of fourth toe	<i>Eremias scripta</i>	
-	The fringe on the both sides of fourth toe		10
10	Femoral pores present	<i>Eremias acutirostris</i>	
-	Femoral pores absent	<i>Eremias aporosceles</i>	
11	Dorsals 55 or more at midbody	<i>Eremias veloc</i>	
-	Dorsals 50 or less at midbody	<i>Eremias fasciata</i>	

Genus *Acanthodactylus*
WIEGMANN, 1834
(3 species, 3 forms)

Acanthodactylus blanfordii BOULENGER
(Red-tail Sand Lizard: *Surakh-dum chalpaya*)
- 1918 *Acanthodactylus cantoris* var. *blanfordii*, Bull. Soc. Zool. France, Paris 43: 154.

Type locality: Bam, Persia; Mand, Balochistan, Pakistan.

Distribution: Recorded from western Balochistan and along the Makran coast. Extending into southern Afghanistan.

Acanthodactylus cantoris GÜNTHER
(Blue-tail Sand Lizard: *Neeli-dum chalpaya*)
- 1864 *Acanthodactylus cantoris* GÜNTHER, Rep. Brit. India, London 73.

Type locality: Ramnagar, India

Distribution: Throughout the plains and deserts of Pakistan and India, from sea level to an elevation of 300 m. A common lizard along beaches of Pakistani coastal areas.

Acanthodactylus micropholis BLANFORD (Yellow-tail Sand Lizard: *Peeli-dum chalpaya*) - 1874 *Acanthodactylus micropholis* Blanford, Ann. Mag. Nat. Hist., London (4) 13: 33.

Type locality: Magas, Balochistan.

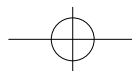
Distribution: Along coastal Makran, Las Bela; northward extending to central Balochistan and to southeastern Iran.

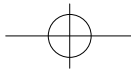
Genus *Eremias*
WIEGMANN, 1834
(5 species, 5 forms)

Eremias acutirostris (BOULENGER)
(Lesser Reticulate Sand Lizard: *Lakeer-dar taiz-rao*) - 1887 *Scapteira acutirostris* BOULENGER, Cat. Liz. Brit. Mus., London 3: 114.

Type locality: Between Nushki and Helmand, Balochistan, Pakistan.

Distribution: Ranges from desert basins of northwestern Balochistan, Pakistan. Eastern Iran and southern Afghanistan.





Eremias aporosceles (ALCOCK & FINN) (Greater Reticulate Sand Lizard: *Balochi taiz-rao*) - 1896 *Scapteira aporosceles* ALCOCK & FINN, J. Asiatic Soc. Bengal, Calcutta 65: 559.

Type locality: Near Nushki, northern Balochistan, Pakistan.

Distribution: Recorded from around Koh Malik-do-Khand, at the Afghanistan-Pakistan border.

Eremias fasciata BLANFORD (Striped Sand Lizard: *Patti-dar taiz-rao*) - 1874 *Eremias fasciata* BLANFORD, Ann. Mag. Nat. Hist., London (4) 14: 32.

Type locality: Saidabad, southwest of Kirman, Iran (restricted by SMITH 1935).

Distribution: Balochistan up to Waziristan and Dera Ismael Khan (KHAN, W. 1997). Ranges from Iran to Afghanistan.

Eremias persica (BLANFORD) (Persian Sand Lizard: *Irani taiz-rao*) - 1874 *Eremias persica* BLANFORD, Ann. Mag. Nat. Hist., London (4) 13: 31.

Type locality: Ispahan, Iran.

Distribution: Northern Waziristan, Quetta and Nushki, from elevation upto 1,000 m to northern Iran.

Eremias scripta (STRAUCH) (Vermiculate Sand Lizard: *Jal-dar taiz-rao*) - 1867 *Podarcis scripta* STRAUCH, Mel. Biol. Bull. Acad., St. Petersburg 4: 424.

Type locality: Aralo-Caspian desert.

Distribution: Northern Balochistan to east of Nushki. Transcaspia to eastern Khazakistan, Iran, Afghanistan and northern Balochistan.

Genus *Mesalina*
GRAY, 1838
(2 species, 2 forms)

Mesalina brevirostris BLANFORD (Short-snout Sand Lizard: *Chotta-sar taiz-*

rao) - 1874 *Mesalina brevirostris* BLANFORD, Ann. Mag. Nat. Hist., London (4) 13: 32.

Type locality: Kalabag, north-western Punjab, Pakistan, and Tumb Island, Persian Gulf, Iran.

Distribution: From District Mianwali, in north-western Punjab, to coastal Las Bela. Extensively distributed in the west to Syria.

Mesalina watsonana (STOLICZKA) (Spotted Sand Lizard: *Chittra taiz-rao*) - 1872 *Eremias watsonana* STOLICZKA, Proc. Asiatic Soc. Bengal, Calcutta 1872: 86.

Type locality: Sindh, between Karachi and Sukkhour, Pakistan.

Distribution: Occurs throughout the plains, excluding the deserts, from sea level to 2,000 m of elevation. Extends from Rajputana to southern Afghanistan, and Iran.

Genus *Ophisops*
MÉNÉTRIÉS, 1832
(2 species, 2 forms)

Ophisops elegans MÉNÉTRIÉS (Smooth Spectacled Lizard: *Naram chishma-chalpaya*) - 1832 *Ophisops elegans* MÉNÉTRIÉS, Cat. Rais. Obj. Zool. Caucas., St. Petersburg: 63.

Type locality: Near Baku, Caspian Sea.

Distribution: Mianwali District and Waziristan hilly tracts. Widely distributed in the west, extending to the Caspian region and west to Turkey and the Levant.

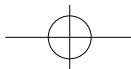
Ophisops jerdonii BLYTH (Rugose Spectacled Lizard: *Khurdra chisma-chalpaya*) - 1853 *Ophisops jerdonii* BLYTH, J. Asiatic Soc. Bengal, Calcutta 22: 653.

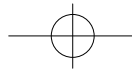
Type locality: Alpine Punjab, Pakistan.

Distribution: Widely distributed in the plains and semihilly regions of the Punjab and Sindh plains; alpine Punjab, Salt Range, Waziristan, Quetta, and Khuzdar in Balochistan and India.

Family S c i n c i d a e
(8 genera, 16 species, 16 forms)

1	Body serpentine; limbs short and vestigial	2
-	Body not markedly serpentine; limbs well developed	5
2	Fingers four; toes three	3
-	Both fingers and toes three	4





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3	Scale rows at midbody 20	<i>Ophiomorus blanfordii</i>
-	Scale rows at midbody 22	<i>Ophiomorus brevipes</i>
4	Parietals in contact with anterior temporal	<i>Ophiomorus tridactylus</i>
-	Parietal and anterior temporal separated by posterior temporal	<i>Ophiomorus raithmai</i>
5	Eyelids fused to form spectacles	6
-	Eyelids movable	7
6	Ear hidden beneath scales	<i>Ablepharus grayanus</i>
-	Ear opening small but distinct	<i>Ablepharus pannonicus</i>
7	Supranasal scale present	8
-	Supranasal scale absent	9
8	Scales of middorsal rows much wider than laterals	10
-	Dorsals of equal size throughout	13
9	Scales at midbody 24-30	<i>Scincella himalayana</i>
-	Scales at midbody 32-36	<i>Scincella ladacensis</i>
10	A single row of broad dorsal scales	<i>Eurylepis taeniolatus</i>
-	Double row of broad dorsal scales	11
11	Middorsals 26-30	12
-	Middorsals 52-56; 5-7 dark brown dorsal stripes	<i>Novoeumeces indothalensis</i>
12	Dorsum uniform brown or with three more or less distinct dark stripes	<i>Novoeumeces schneiderii zarudnyi</i>
-	Dorsum pale gray, vermilion stripes from temporal to groin, scattered orange scales on body	<i>Novoeumeces blythianus</i>
13	Naris piercing nasals	14
-	Naris between nasals and rostral	<i>Chalcides ocellatus</i>
14	Limbs well developed, pentadactyle	15
-	Limbs short and vestigial	<i>Lygosoma punctata</i>
15	Dorsals with three keels	<i>Mabuya dissimilis</i>
-	Dorsals with 3 to 7 keels	<i>Mabuya macularia</i>

Genus *Ablepharus* FITZINGER, 1823
(2 species, 2 forms; see FUHN 1969;
EREMCHENKO & SZCZERBAK 1986)

Ablepharus grayanus (STOLICZKA)
(Earless Snake-eyed Skink: *Bahri saamp-
chishm*) - 1872 *Blepharosteres grayanus*
STOLICZKA, Proc. Asiatic Soc. Bengal, Cal-
cutta 1872: 74.

Type locality: Waggur District, north-
east Kutch, India.

Distribution: This lizard is recorded
from throughout Pakistan at low elevations,
especially grass fields in the Indus riparian
system. It has also been recorded from hills
around Fort Munro, Dera Ghazi Khan at an
elevation of 1800 m.

Ablepharus pannonicus (FITZINGER)
(Red-tailed Snake-eyed Skink: *Surakh-dum
saamp-chishm*) - 1823 *Scincus pannonicus*
FITZINGER in LIECHTENSTEIN in EVERS-
MANN, Reise von Orenburg nach Buchar-
a, Berlin: 103.

Type locality: Bukhara.

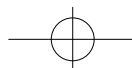
Distribution: Reported from around
Quetta, Waziristan hills, Chitral and the Salt
Range. Ranges from the Arabian Peninsula
and North Arabian Desert, through Iran to
circum-Mediterranean region, Tadzhikistan
and Afghanistan.

Genus *Chalcides*
LAURENTI, 1768
(1 species, 1 form)

Chalcides ocellatus ocellatus (FORS-
KÅL) (Ocellated Skink: *Goal-jisam baa-
mani*) - 1775 *Lacerta ocellatus* FORSKÅL,
Descript. Anim., Havnia (Copenhagen):
13.

Type locality: Egypt.

Distribution: In Pakistan it has been
recorded from along the coastal strip,
around Karachi and Astola Island. Widely
distributed in the West, from the Medi-
terranean through northern Saudi Arabia, the
Persian Gulf to the Makran coast.



Genus *Eurylepis*
BLYTH, 1854
(1 species, 1 form)

Eurylepis taeniolatus BLYTH (Common Mole Skink: *Maidani reg-mahi*) - 1854
Eurylepis taeniolatus BLYTH, J. Asiatic Soc. Bengal, Calcutta 23: 739.

Type locality: Salt Range, Punjab, Pakistan.

Distribution: Collected from throughout the plains of Punjab and Sindh to an elevation of 2,000 m. From Arabia to Transcaspia, from Kutch and Sindh to Kashmir.

Genus *Lygosoma*
HARDWICKE & GRAY, 1827
(1 species, 1 form)

Lygosoma punctata (LINNAEUS) (Spotted Garden Skink: *Chitri baghban baamani*) - 1766 *Lacerta punctata* LINNAEUS, Syst. Nat., Stockholm (12) 1: 369.

Type locality: Asia.

Distribution: Restricted to the eastern strip of the Punjab plain, northward extending into Hazara Division. Wide range in the Indo-Gangetic plains, from Bangladesh through India and Sri Lanka.

Genus *Mabuya*
FITZINGER, 1826
(2 species, 2 forms)

Mabuya dissimilis (HALLOWELL) (Striped Grass Skink: *Lakeer-dar gaas-goodi*) - 1860 *Euprepes dissimilis* HALLOWELL, Transact. Amer. Phil. Soc., Philadelphia 11: 78.

Type locality: Bengal.

Distribution: Rawalpindi, upper Indus Valley to Waziristan, extending into the Indus Delta. Widely distributed from western Bengal, Bihar, across the Gangetic plain.

Mabuya macularia (BLYTH) (Bronze Grass Skink: *Bhoori gaas-goodi*) - 1853
Euprepes macularius BLYTH, J. Asiatic Soc. Bengal, Calcutta 22: 652.

Type locality: Rangpur, Bengal.

Distribution: Reported from the plains and highland of the Salt Range, in Punjab, around Karachi and Las Bela. Range of this

skink extends from Laos and Cambodia to northern Malaya, Myanmar, western Bengal and Bihar, across the Indo-Gangetic Plain, to the Iranian Plateau.

Genus *Novoeumeces*
GRIFFITH, NGO & MURPHY, 2000
(3 species, 3 forms)

Novoeumeces blythianus (J. ANDERSON) (Orange Tail Skink: *Maltaidum reg-mahi*) - 1871 *Mabouia blythiana* JOHN ANDERSON, Proc. Asiatic Soc. Bengal, Calcutta 1871: 186.

Type locality: Purchased in Amritsar, Punjab, India.

Distribution: Collected from coastal areas of Pakistan. Also reported from near the Khyber Pass in north-western Pakistan, close to the Afghan border.

Novoeumeces indothalensis (M. S. KHAN & M. R. Z. KHAN) (Thal Mole Skink: *Thal reg-mahi*) - 1997 *Eumeces indothalensis* M. S. KHAN & M. Z. KHAN, Asiatic Herpetol. Res., Berkeley 7: 61-67.

Type locality: Bar Ginga Village, 9 km south-west of Bakkar western Punjab, Pakistan.

Distribution: South-western Thal Desert, close to the left bank of the River Indus, south-western Punjab, Pakistan.

Novoeumeces schneiderii zarudnyi (NIKOLSKY) (Red Striped Skink: *Surkh dahari reg-mahi*) - 1900 *Eumeces zarudnyi* NIKOLSKY, Ann. Mus. Zool. Acad. Sci., St. Petersburg 1899: 399.

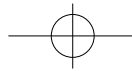
Type locality: Bazman and Schur-Ab in Kirman; Labe-Ab in Seistan, Iran.

Distribution: Recorded from Astola Island, 10 km off the coast of Karachi. Reported from central to southeastern Iran.

Genus *Ophiomorus*
DUMÉRIL & BIBRON, 1839
(4 species, 4 forms)

Ophiomorus blanfordi BOULENGER (Makran Sand Swimmer: *Makran reg-tyair*) - 1887 *Ophiomorus blanfordi* BOULENGER, Cat. Liz. Brit. Mus., London 3: 395.

Type locality: Chah Bahar, Balochistan, Iran.



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Distribution: Known from coastal Makran. Extends into the adjoining coastal Iran.

Ophiomorus brevipes (BLANFORD) (Four-fingered Sand Swimmer: *4-ungusht reg-tyair*) - 1874 *Zygnopsis brevipes* BLANFORD, Ann. Mag. Nat. Hist., London 14 (4): 33.

Type locality: Saadatabad, southwest of Kirman, Iran.

Distribution: Recorded from along the Iran-Pakistan border.

Ophiomorus raithmai S. ANDERSON & LEVITON (Three-fingered Sand Fish: *3-ungusht reg-tyair*) - 1966 *Ophiomorus raithmai* S. ANDERSON & LEVITON, Proc. Calif. Acad. Sci., San Francisco 33: 519.

Type locality: Ghizri, Karachi District, Pakistan.

Distribution: From various localities in Sindh and Las Bela, and Kathiwar in India.

Ophiomorus tridactylus (BLYTH) (Three-toed Sand Swimmer: *3-ungushti reg-tyair*) - 1853 *Sphenocephalus tridactylus* BLYTH, J. Asiatic Soc. Bengal, Calcutta 22: 654.

Type locality: Afghanistan.

Distribution: Reported from along the

borders between Afghanistan, Iran, and Pakistan. In Pakistan it is known from western Balochistan.

Genus *Scincella*
MITTLEMAN, 1950
(2 species, 2 forms)

Scincella himalayanus (GÜNTHER) (Himalayan Skink: *Hamalayi baahmani*) - 1864 *Eumeces himalayanus* GÜNTHER, Rept. Brit. Ind., London 86.

Type locality: Kashmir; Garhval, Simla, India.

Distribution: In Pakistan it abounds in marginal vegetation along water courses in alpine Punjab, Salt Range, Chitral, Waziristan, and Kalabag, District Mianwali, recorded from Nepal to Turkmenistan.

Scincella ladacensis (GÜNTHER) (Ice Field Skink: *Barfani baahmani*) - 1864 *Eumeces ladacensis* GÜNTHER, Rept. Brit. Ind., London 88.

Type locality: Ladak, Baltistan, Kashmir.

Distribution: Reported from Baltistan, Kahajeng Khola, in Nepal up to an altitude of 6,000 m (highest altitude so far reported for any cold-blooded vertebrate).

Family Uromastycidae (1 genus, 2 species, 2 forms)

- 1 Body dorsum with uniform granular scales, caudal spines smaller, 20-24 in a row at the base of the tail
- Dorsal body scales granular, interspersed with transverse rows of spiny scales; caudal spines larger, 8-10 in a row at the base

Uromastyx hardwickii

Uromastyx asmussi

Genus *Uromastyx*
MERREM, 1820
(2 species)

Uromastyx asmussi (STRAUCH) (Seistan Spiny-tail Ground Lizard: *Sestani sanda*) - 1863 *Centrotrachelus asmusse* STRAUCH, Bull. Acad. Sci., St. Petersburg 6: 479.

Type locality: Sar-i-tschah, Persia.

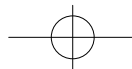
Distribution: Reported from the Chagai, Balochistan. Collected from south-

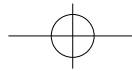
ern and central Iran and along the Afghan-Iran border.

Uromastyx hardwickii GRAY (Indus Valley Spiny-tail Ground Lizard: *Maidani sanda*) - 1827 *Uromastyx hardwickii* GRAY, Zool. J., London 3: 219.

Type locality: Kanauj District, United Provinces, India.

Distribution: Recorded from throughout the Indus Valley; extending into Las Bela, southern Balochistan.





Family *V a r a n i d a e*
(1 genus, 3 species, 4 forms)

- | | | |
|---|--|----------------------------|
| 1 | Tail compressed with a median dorsal ridge;
scales on side of neck keeled | 2 |
| - | Tail round, ridge slightly indicated in the middle of tail;
scales on the sides of neck conical | <i>Varanus griseus</i> |
| 2 | Naris nearer to the tip of snout than eye | <i>Varanus flavescens</i> |
| - | Naris nearer to eye than the tip of snout | <i>Varanus bengalensis</i> |

Genus *Varanus* MERREM, 1820
(3 species, 4 forms)

Delta in Pakistan. Known to extend to western Bengal.

Varanus bengalensis (DAUDIN)
(Bengal Monitor: *Bengali goh*) - 1802
Tupinambis bengalensis DAUDIN, Hist. Nat.
Rept., Paris 3: 67.

Type locality: Bengal.

Distribution: Throughout the plains of Punjab and Sindh, sub-Himalayan tracts, and Waziristan. Assam, Burma, Nepal, Sikkim, throughout India, and Sri Lanka; extending westward into Pakistan, south-eastern Iran and eastern Afghanistan.

Varanus griseus caspius (EICHWALD)
(Caspian Monitor: *Koh-kafi goh*) - 1831
Psammosaurus caspius EICHWALD, Zool.
Spec., Vilna 3: 190.

Type locality: Eastern coast of the Caspian Sea.

Distribution: Northern and western Balochistan. From the Transcaspian Desert to southern Khazakistan and Afghanistan, extending into Pakistan.

Varanus flavescens (HARDWICKE & GRAY) (Yellow Monitor: *Peeli goh*) - 1827
Monitor flavescens HARDWICKE & GRAY,
Zool. J. London 3: 226.

Type locality: India.

Distribution: This varanid has a restricted distribution range. It has been reported from Salt Range and District Sialkot in northern Punjab, and the Sindh

Varanus griseus konieczynei MERTENS
(Indo-Pak Desert Monitor: *Indo-Pak Goh*) -
1954 *Varanus griseus konieczynei*
MERTENS, Senckenb. Biol. Frankfurt a. M.
35: 355.

Type locality: Korangi, Karachi, Pakistan.

Distribution: Cholistan, Sindh, and the Kharan Desert to central India.

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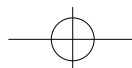
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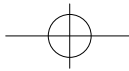
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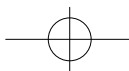


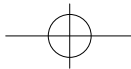


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DATE OF SUBMISSION: July 18th, 2002

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