

FAUNA BURUANA.

REPTILES.

By

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This paper deals with the reptiles collected by Mr. L. J. TOXOPEUS on the island of Buru in 1921 and 1922. Besides it contains the description of a small collection from this island, made in 1913, belonging to the Buitenzorg Museum. In the following pages these are indicated as Buru ('13).

Twenty seven species are mentioned, thirteen of which were previously not known from Buru. Two species, *Draco toxopei* and *Draco buruensis* are believed to be new. Besides a new subspecies of *Ablepharus boutoni* DESJ. is described.

The following list containing the species found until now on Buru, Ambon or Ceram, also shows their distribution on Celebes and New-Guinea.

	Celebes	Buru	Ambon	Ceram	N. Guinea
Lacertilia.					
<i>Hemidactylus frenatus</i> D. B.	×	×	×	×	×
<i>Hemidactylus garnoti</i> D. B.			×		
<i>Gymnodactylus marmoratus</i> (Kuhl).	×	×	×	×	×
<i>Gehyra mutilata</i> (Wiegman).	×	×	×		×
<i>Lepidodactylus lugubris</i> (D. B.).	×		×		×
<i>Gecko vittatus</i> Houett.		×	×	×	×
<i>Gecko monarchus</i> (D. B.).	×		×	×	
<i>Gecko verticillatus</i> Lar.	×		×		

	Celebes	Buru	Ambon	Ceram	N. Guinea
<i>Draco lineatus</i> Daud.	×	×	×	×	× ¹⁾
<i>Draco toxopei</i> n. sp. *		×			
<i>Draco buruensis</i> n. sp.		×			
<i>Calotes cristatellus</i> (Kuhl).	×	×	×	×	×
<i>Lophura amboinensis</i> (Schloss.).	×		×	×	×
<i>Varanus indicus</i> (Daud.).	×	×	×	×	×
<i>Tiliqua gigas</i> (Schn.).			×	×	×
<i>Mabuia multifasciata</i> (Kuhl).	×	×	×	×	×
<i>Lygosoma smaragdinum</i> (Less.).	×	×	×	×	×
<i>Lygosoma fuscum</i> (D. B.).		×	×	×	×
<i>Lygosoma novae-guineae</i> Meyer.		×	×	×	×
<i>Lygosoma cyanogaster</i> (Less.).		×	×		×
<i>Lygosoma kuekenthali</i> Boettg.			×		
<i>Lygosoma cyanurum</i> (Less.).	×	×	×	×	×
<i>Lygosoma atrocostatum</i> (Less.).	×		×		×
<i>Lygosoma rufescens</i> (Shaw).			×	×	×
<i>Lygosoma mülleri</i> (Schlegel).				×	×
<i>Lygosoma baudini</i> (D. B.).		× ²⁾			×
<i>Lygosoma undulatum</i> Peters & Doria.				×	×
<i>Ablepharus boutoni</i> (Desj.).		×	×	×	×
<i>Dibamus novae-guineae</i> D. B.	×			×	×
Ophidia.					
<i>Typhlops braminus</i> (Daud.).	×	×	×	×	
<i>Typhlops multilineatus</i> Schleg.				×	×
<i>Python reticulatus</i> (Schn.).	×	×	×	×	
<i>Python amethystinus</i> (Schn.).			×	×	×
<i>Enygrus carinatus</i> (Schn.).	×		×	×	×
<i>Chersydrus granulatus</i> (Schn.).	×		×		×
<i>Dendrophis pictus</i> (Gmel.).	×		×	×	
<i>Tropidonotus elongatus</i> Jan.				×	
<i>Stegonotus modestus</i> (Schl.).		×	×	×	
<i>Stegonotus batjanensis</i> (Gthr.).			×		

¹⁾ Not yet mentioned in literature, Dr. NELLY DE ROOY kindly wrote me that it was found during the Dutch New-Guinea Expedition 1920.

²⁾ Mentioned from Buru by PETERS & DORIA, Ann. Mus. Civ. Gen. 1875 XIII, p. 353; it was not collected by Mr. TOXOPEUS.

	Celebes	Buru	Ambon	Ceram	N. Guinea
<i>Brachyorrhus albus</i> (L.).		×	×	×	×
<i>Calamaria ceramensis</i> de Rooy.		×	×	×	×
<i>Cerberus rhynchops</i> (Schn.).	×	×	×	×	×
<i>Fordonia leucobalia</i> (Schl.).			×	×	×
<i>Dipsadomorphus drapiezii</i> (Boie).			×		
<i>Dipsadomorphus irregularis</i> (Merr.).	×	×	×	×	×
<i>Chrysopelea rhodopleuron</i> Boie.		×	×	×	
<i>Platurus schistorhynchus</i> Gthr.			×		×
<i>Platurus colubrinus</i> (Schn.).	×	×	×		×
<i>Hydrus platurus</i> (L.).	×		×		×
<i>Pseudelaps mülleri</i> (Schl.).				×	×
<i>Acanthophis antarcticus</i> (Shaw.).				×	×
<i>Chelonia.</i>					
<i>Cyclemys amboinensis</i> (Daud.).	×	×	×	×	
<i>Chelonia mydas</i> (L.).	×		×		×
<i>Chelonia imbricata</i> (L.).	×	×	×		×
<i>Caretta caretta</i> (L.).	×		×		×
<i>Emydosauria.</i>					
<i>Crocodilus porosus</i> Schn.	×	×	×		×

Description of the species.

LACERTILIA.

Gymnodactylus marmoratus (KÜHL).*Phyllurus marmoratus*, KÜHL, Fitz. N. Class. Rept. 1816. p. 47.*Gymnodactylus marmoratus*, DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 13, fig. 7.

This tree-gecko, which was not yet known from Buru, was collected at Leksula. It was found under the bark of a tree.

Leksula 1 spec.

Hemidactylus frenatus DUM. & BIBR.*Hemidactylus frenatus*, DUM. & BIBR., Erp. Gén. III 1836, p. 366.*Hemidactylus frenatus*; DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 28, fig. 17.

This species, which is the commonest house-gecko, had not yet been described from Buru.

Leksula ♀ 3 spec. ♂ 4 spec.

Wa'katin ♀ 2 spec. ♂ 2 spec.

Gehyra mutilata (WIEGM.).

Hemidactylus (Peropus) mutilatus, WIEGM., Nov. Acta Acad. Leop. Carol. XVII 1835, p. 238.

Gehyra mutilata, DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 41, fig. 26 & 28.

This species, of which four males were collected, was not yet known from Buru.

Leksula 2 spec.

Wai'Eno 1 spec.

Stat. 8. 1 spec.

Its measurements are shown in the following table.

	Leksula 1.	Leksula 2.	Wai'Eno.	Stat. 8.
	mm.	mm.	mm.	mm.
total length	—	151	—	186
snout to vent	57	53	56	58
tail	—	72	—	101
length of head	26	26	24	27
width of head	16,5	13	14	17,5
forelimb	21	23	22	23
hindlimb	27	30	31	32

Gecko vittatus HOUTTUYN.

Gekko vittatus, HOUTTUYN, Verh. Genootsch. Vlissingen IX 1782, p. 325.

Gecko vittatus, DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 52, fig. 33 d.

Tree-gecko Two females.

Leksula 1 spec.

Kaku Datè 1 spec.

Draco lineatus DAUD.

Draco lineatus, DAUDIN, Hist. Rept. III 1802, p. 298.

Draco lineatus, DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 76.

This species was collected at:

Leksula 2 spec.

Rana 5 spec.

Wa'katin 4 spec.

Wai-Eno 5 spec.

Ehu 3 spec.

Mnges Waen 2 spec.

Stat. 8. 2 spec.

Buru ('13) 1 spec.

Draco toxopei nov. spec.

Wa'katin 1 spec.

Rana 1 spec.

Head small; snout as long as the orbit; nostril lateral, directed outward; tympanum scaly.

Head scales unequal, keeled, those on the occiput smooth, largest on the anterior border of the eye, the supra-ocular region and the occiput. Two larger, keeled scales in the median line of the snout. The larger supra-ocular scales are separated by 4 or 5 rows of small scales. Nasal separated from the rostral by one scale. 6 or 7 upper and 7 lower labials. Gular sac about half the length of the head; nuchal crest low. Dorsal scales keeled, as large as the ventrals, which are strongly keeled. No lateral series of enlarged scales. Tail twice the length of head and body. The forelimb extends far beyond the tip of the snout, the hindlimb reaches the shoulder. Pale grey above, with wavy transverse bands, which form brown annules on the tail; gular sac yellow; membranes dark brown, with white spots in transverse rows above.

The new species resembles in several characters *Draco beccarii* PETERS & DORIA, but differs from it mainly by the colour of the membranes, which are dark brown, the shorter gular sac and the scaly tympanum.

Measurements of *Draco toxopei* n. sp.

	Wa'katin mm.	Rana mm.
total length	223	189
snout to vent	69	60
tail	154	129
axilla to groin	40	30
forelimb	33	26
hindlimb	40	34

***Draco buruensis* nov. spec.**

Leksula 1 spec.

Ehu 2 spec.

Head small, snout as long as, or a little longer than the diameter of the orbit. Nostril lateral directed outward; tympanum scaly, smaller than the eye opening. Headscales very unequal, keeled, those on the median line of the snout, on the supra-ocular region and on the occiput largest; 6 or 7 upper labials. Gular sac shorter than the head; a low nuchal crest. Dorsal scales somewhat irregular, keeled. Two specimens with and one without a broken up lateral series of enlarged scales. The largest dorsal scales not much larger than the ventrals, which are very regular and strongly keeled. Tail without a crest. The forelimb extends a good deal beyond the tip of the snout; the hindlimb nearly reaches the axilla.

Greyish or greenish above, with somewhat irregular brown markings, which form transverse bands or lines. Sides of the neck with round light spots. Gular sac yellow; membranes yellow with four dark cross bands above, unspotted below. Lower parts uniform, light. Throat greenish dark with large white spots.

Measurements of *Draco buruensis* n. sp.

	Leksula.	Ehu 1.	Ehu 2.
	mm.	mm.	mm.
total length	252	257	236
tail	172	175	160
snout to vent	80	82	76
forelimb	38	39	36
hindlimb	47	46	47
axilla to groin	43	44	41

In several characters this species resembles *Draco splanotus* GTHR. mainly differing from it by the indistinct nuchal crest and the keeled unequal dorsal scales. From *Draco ochropterus* WERNER the new species is distinguished by the larger dorsal scales, which in *D. ochropterus* are smaller than the ventrals, and the presence of enlarged lateral scales.

Calotes cristatellus (KUHL).

Agama cristatella, KUHL, Beitr. Zool. Vergl. Anat. 1820 p. 108.

Calotes cristatellus, DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 121, fig. 53.

This species was collected in large quantities; more than half of the specimens caught are young ones. These have dark transverse bands on the back, which are indistinct in the adults. On the sides these bands are much narrower and run backward and downward. In the adults the colour varies between uniform green and green with dark brown spots on lips, snout, throat, axilla or flanks.

Leksula	adult 1 spec.	
Mnges Waen	adult 2 spec.	juv. 1 spec.
Stat 8.		juv. 2 spec.
Wa'katin	adult 2 spec.	juv. 1 spec.
Wai Eno		juv. 2 spec.
Rana	adult 3 spec.	juv. 12 spec.
Buru ('13)	adult 6 spec.	

Varanus indicus (DAUD.).

Tupinambis indicus, DAUDIN, Rept. III 1802 p. 46, pl. XXX.

Varanus indicus, DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 148.

This species was collected at:

Leksula	6 spec.
Wa'katin	2 spec.
Rana	1 spec.
En Biloro	1 spec.
Buru ('13)	4 spec.

Mabuia multifasciata (KUHL).

Scincus multifasciatus, KUHL, Beitr. Zool. u. Vergl. Anat. 1820, p. 126.

Mabuia multifasciata, DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 162, fig. 69.

This species is one of the most widely spread lizards of the Archipelago. It was collected at:

Leksula	1 spec.
Wai Eno	7 spec.
Mnges Waen	1 spec.
Rana	9 spec.
Wa'katin	5 spec.
Stat. 8.	4 spec.

One of the specimens collected at Stat. 8 has a divided frontonasal.

Lygosoma smaragdinum (LESSON).

Scincus smaragdinus, LESSON, Voy. Coquille Zool. II 1830, p. 43, pl. III fig. 1.

Lygosoma smaragdinum, DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 199.

Although this species had not yet been collected in Buru, it was known to occur there as BARBOUR¹⁾ saw it at Tifu, but was not able to take it there. The specimen collected by Mr. TOXOPEUS, was taken at Leksula and belongs to the variety *celebense* DE ROOY (DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 201).

Leksula	1 spec.
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Lygosoma fuscum (DUM. & BIBR.).

Heteropus fuscus, DUMÉRIL & BIBRON, Erp. Gén. v. 1839, p. 759.

Lygosoma fuscum, DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 241, fig. 87.

This species was not yet known from Buru. Only one specimen was captured in 1913.

Buru ('13)	1 spec.
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Lygosoma novae-guineae MEYER.

Lygosoma (Carlita) novae-guineae, MEYER, Mon. Berl. Ac. 1874, p. 132.

Lygosoma novae-guineae, DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 244.

All the specimens collected have a light brown colour. The species was not yet known from Buru.

Leksula	1 spec.
Rana	11 spec.
Fakal	13 spec.
Mnges Waen	1 spec.
Wa'katin	4 spec.
Wai Eno	2 spec.
Stat. 7.	3 spec.
Ajer berbunji	3 spec.
Ehu	3 spec.

¹⁾ BARBOUR, Mem. Mus. Comp. Zool. Harv. Coll. XLIV 1912, p. 91.

Lygosoma cyanogaster (LESSON).*Scincus cyanogaster*, LESSON, Voy. Coquille Zool. II 1830, p. 47, pl. III fig. 3.*Lygosoma cyanogaster*, DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 248.

This species was not yet known from Buru; it was collected at:

Leksula	3 spec.
Wa'katin	1 spec.
Mnges Waen	1 spec.
Stat. 16.	1 spec.

Lygosoma cyanurum (LESSON).*Scincus cyanurus*, LESSON, Voy. Coquille Zool. II 1830, p. 49, pl. IV fig. 2.*Lygosoma cyanurum*, DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 253, fig. 90.

Leksula	1 spec.
Rana	25 spec.
Fakal	1 spec.
Kaju putih	2 spec.
Wai Eno	1 spec.
Stat. 8.	9 spec.

Besides the specimens, mentioned above I found in the collection eleven specimens from:

Rana	7 spec.
Fakal	1 spec.
Wai Eno	1 spec.
Stat. 8.	1 spec.
Buru ('13)	1 spec.

These specimens differ in several points, concerning the colour, from the typical *L. cyanurum*, so that at first sight they seem to belong to a different species. A narrow inspection however shows, that no difference in scalation and measurements can be traced. Only the colour is different. In the most extreme case it is brown above, with an indication of the two lateral yellowish lines. The tail is brown above, lighter beneath, but I found one specimen where the tail was azure beneath. Of one specimen, without a tail I was unable to decide whether I had to do with a specimen of the typical *L. cyanurum* or of the variety. As the table of measurements shows it are all adult individuals. I think it very probable that only the older individuals may acquire the brown colour. Moreover PETERS & DORIA ¹⁾ wrote: Alcuni pochi esemplari (specialmente di Amboina) sono superiormente unicolori, di un bruno rossastro tendente al cioccolato.

So it will not be necessary to distinguish a new subspecies.

¹⁾ PETERS & DORIA, Ann. Mus. Civ. Gen. 1878 XIII p. 357.

Table of measurements.

	Wai Eno	Buru '13	Fak. Stat. 8.	Rana Rana Rana R	Rana Rana Rana R	Rana Rana Rana R	Rana Rana Rana R	Rana Rana Rana R	Rana Rana Rana R	Rana Rana Rana R
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
total length	174	185	168	—	180	163	—	153	—	—
tail	120	127	115	—	121	110	—	96	—	—
snout to vent	54	58	53	56	59	53	55	57	58	57
snout to forelimb	32	22	18	21	22	20	18	21	20	19
forelimb	20	21	18	21	23	18	18	18	21	20
hindlimb	30	35	26	31	33	27	26	26	27	29
axilla to groin	23	25	23	24	26	22	26	26	28	24

Ablepharus boutoni (DESJ.).*Scincus boutonii*, DESJARDINS, Ann. Sc. Nat. XXII 1831, p. 298.*Ablepharus boutoni*, DE ROOY, Rept. Ind. Aust. Arch. I 1915, p. 272, fig. 96.

Wa'katin 2 spec.

Rana 1 spec.

These specimens belong to the variety *quinquetaeniatus* GÜNTHER. Besides I found two specimens collected at Rana, belonging to a new variety.

Var. *intermedius* subsp. nov.

24 scales round the body, fifth upper labial below the eye. Black above with three very distinct greenish longitudinal lines, a median one from the frontal to the base of the tail, two latero-dorsals beginning at the supra-orbital region; flanks dark with light spots; limbs and tail spotted with brown and light.

The new subspecies keeps the middle between *Abl. boutoni* var. *quinquetaeniatus* GÜNTHER. and *Abl. boutoni* var. *peroni* COCT. The latter also occurring on Buru, it is not impossible, that a cross between the two gave origin to this new subspecies.

OPHIDIA.

Typhlops braminus (DAUD.).*Eryx braminus*, DAUDIN, Hist. Rept. VII 1803, p. 279.*Typhlops braminus*, DE ROOY, Rept. Ind. Aust. Arch. II 1917, p. 5.

This species was not yet known from Buru, one specimen was found in an ant's nest.

Leksula 2 spec.

Nom. indig.: ular bisa.

Python reticulatus (SCHN.).*Boa reticulata*, SCHNEIDER, Hist. Amph. II 1802 p. 264.*Python reticulatus*, DE ROOY, Rept. Ind. Aust. Arch. II 1917, p. 20. fig. 9.

This species had not yet been collected in Buru, but already WALLACE¹⁾ mentions a big snake from Buru, which will doubtless have been *P. reticulatus*. Although Mr. TOXOPEUS was not able to collect large specimens, he wrote me that these occur there. On one occasion in October '21 Mr. ESTRIN was frightened out of a mountain camp by a large Python.

Leksula 3 spec.

Buru 3 spec.

Nom. indig.: mata leo.

Stegonotus modestus (SCHLEGEL).*Lycodon modestus*, SCHLEGEL, Phys. Serp. 1837, p. 119, pl. IV, fig 16 & 17.*Stegonotus modestus*, DE ROOY, Rept. Ind. Aust. Arch. II 1917, p. 115, fig. 49.

Three specimens collected at:

Wai Eno 1 spec.

Rana 1 spec.

Buru 1 spec.

Brachyorrhus albus (L.).*Coluber albus*, LINNÉ, Mus. Ad. Frid. 1754, p. 24, pl. XIV, fig. 2.*Brachyorrhus albus*, DE ROOY, Rept. Ind. Aust. Arch. II 1917, p. 148, fig. 62.

Except the specimens collected in 1913, all the individuals are young, being much darker than the adult ones, and showing the typical median streak of spots along the belly.

Leksula 2 spec.

Fakal 5 spec.

Wai Eno 2 spec.

Rana 3 spec.

Wa'katin 1 spec.

Buru ('13) 1 spec.

Cerberus rhynchops (SCHN.).*Hydrus rhynchops*, SCHNEIDER, Hist. Amph. I 1799, p. 246.*Cerberus rhynchops*, DE ROOY, Rept. Ind. Aust. Arch. II 1917, p. 187, fig. 70.

¹⁾ WALLACE, The Malay Archipelago p. 388.

This species was collected at:

Leksula	1 spec.
Rana	1 spec.
Buru	1 spec.
Buru ('13)	1 spec.

Dipsadomorphus irregularis (MERR.).

Coluber irregularis, MERREM, Bechst. Uebers. Lacép. IV 1802, p. 239, pl. XXXVII, fig. 1

Dipsadomorphus irregularis, DE ROOY, Rept. Ind. Aust. Arch. II 1917, p. 201.

This species was collected in large quantities.

Leksula	6 spec.
Wa'katin	9 spec.
Rana	1 spec.
Nal'Besi	1 spec.
Fakal	3 spec.
Mnges Waen	1 spec.
Buru	8 spec.
Buru ('13)	1 spec.

Chrysopelea rhodopleuron BOIE.

Chrysopelea rhodopleuron, BOIE, Isis, 1827, p. 547.

Chrysopelea rhodopleuron, DE ROOY, Rept. Ind. Aust. Arch, II 1917, p. 212.

This species was collected at:

Leksula	6 spec.
Fakal	1 spec.
Wai Eno	1 spec.
Buru	7 spec.
Buru ('13)	8 spec.

Platurus colubrinus (SCHNEIDER).

Hydrus colubrinus, SCHNEIDER, Hist. Amph. I 1799, p. 238.

Platurus colubrinus, DE ROOY, Rept. Ind. Aust. Arch, II 1917, p. 217, fig. 83.

This species was caught at Leksula. It has a large mite on the left side of the head, so that the left eye is destroyed. The number of scales round the body is 19.

CHELONIA.

Cyclemys amboinensis (DAUD.).

Testudo amboinensis, DAUDIN, Rept. II 1802, p. 309.

Cyclemys amboinensis, DE ROOY, Rept. Ind. Aust. Arch. I 1917, p. 302, fig. 112 & 113.

Some specimens of this species caught at Leksula are still living in the Amsterdam Zoo.

Chelonia imbricata (L.).*Testudo imbricata*, LINNÉ, Syst. Nat. I 1766, p. 350.*Chelonia imbricata*, DE ROOY, Rept. Ind. Aust. Arch. I 1917, p. 309.

A specimen sent to Holland in company with the *Cyclenys amboinensis* died, and did not reach Amsterdam ¹⁾).

EMYDOSAURIA.

Crocodylus porosus SCHNEIDER.*Crocodylus porosus*, SCHNEIDER, Hist. Amph. II 1801, p. 159.*Crocodylus porosus*, DE ROOY, Rept. Ind. Aust. Arch. I 1917, p. 337, fig. 131.

A hide from a specimen shot at Leksula.

¹⁾ *Chelonia mydas* (L.). Eggs, found in the sand of the sea shore near Wa'Tawa (E. Buru) probably belong to that species, which was often seen in the sea swimming. L.T