

KRISTOFER M. HELGEN\*, TANYA LEARY\*\*,  
GIULIANO DORIA\*\*\* & GIOVANNI AMORI\*\*\*\*

CATALOGUE OF MELANESIAN RODENTS IN THE  
MUSEUM OF GENOVA

(MAMMALIA, RODENTIA)

INTRODUCTION

Rodent specimens from Melanesia (New Guinea and surrounding islands) have been stored at the Museo Civico di Storia Naturale “Giacomo Doria” in Genova since the latter decades of the nineteenth century. The main body of this collection (206 samples) is represented by 152 specimens collected by the Italian explorer and collector Lamberto Loria (1855-1913) during his pioneering biological and anthropological survey efforts between 1889 and 1896 in south-eastern New Guinea (the modern day Milne Bay, Central Provinces and National Capital District of Papua New Guinea). Earlier specimens derive from the collections of the Italian naturalist-explorers Odoardo Beccari (1843-1920), 18 specimens from north-western New Guinea, and Luigi Maria D’Albertis (1841-1901), 34 specimens from the Fly River in south-central and Mount Arfak in the Vogelkop Peninsula of north-western New Guinea (D’ALBERTIS 1880; GESTRO 1928; VAN STEENIS KRUSEMAN 1950; CAPOCACCIA & POGGI 1982). A single specimen was collected by the Dutch collector A. A. Bruijn in 1875 (PETERS & DORIA 1876) on the island of Salawati off north-western New Guinea, and another by the British explorer

---

\* Division of Mammals, National Museum of Natural History, MRC 108, Room 390, Smithsonian Institution, Washington D.C., 20013-7012, USA (helgenk@si.edu)

\*\* Parks and Wildlife Division, Department of Environment and Climate Change, P.O. Box 95, Parramatta, NSW 2124, Australia

\*\*\* Museo Civico di Storia Naturale “G. Doria”, Via Brigata Liguria 9, 16121 Genova, Italy

\*\*\*\* CNR – Institute of Ecosystem Studies, Via A. Borelli 50, 00161 Roma, Italy

C. M. Woodford in 1889 in the Solomon Islands (WOODFORD 1890).

Though modest with respect to the number of specimens that it holds, the Museum of Genova represents one of the most important collections of New Guinea mammals (PETERS & DORIA 1876, 1881; THOMAS 1897; FLANNERY 1995a). The collection of Melanesian rodents is important both for its scientific and historical value. It contains, for instance, the first specimens of three endemic New Guinean murine genera to be deposited in a museum (*Leptomys* Thomas, 1897, *Paramelomys* Rümmler, 1936 and *Pogonomelomys* Rümmler, 1936); it also houses a good number of type specimens (as identified below) as well as exemplars of several species very rare in collections, such as the large endemic insular murines *Uromys rex* (of Guadalcanal in the Solomon Archipelago) and *Uromys siebersi* (of the Kai Archipelago of Indonesia).

Previous overviews of Melanesian rodent holdings in Genova include the publications of PETERS (1874) and PETERS & DORIA (1876, 1881), who reviewed the Melanesian material gathered by Beccari, D'Albertis and Bruijn (including new species of monotremes, marsupials, rodents and bats), and that of THOMAS (1897), who provided an overview of mammal specimens later obtained by Loria. During the twentieth century, a number of rodent taxonomists discussed particular Melanesian specimens in the collection (RÜMMLER 1938; TATE 1951; DENNIS & MENZIES 1979; TAYLOR *et al.* 1982; MENZIES 1989, 1990, 1996; GROVES & FLANNERY 1994; FLANNERY 1995a) and Genova specimens continue to influence important works in New Guinea murine systematics today (MUSSER & CARLETON 2005; HELGEN 2007; MUSSER *et al.* in press).

The purpose of this catalogue is to bring together in one place a summary of information on these holdings and to bring up to date the identifications of the museum's material according to current taxonomy and nomenclature (e.g. MUSSER & CARLETON 2005).

#### TYPE SPECIMENS

Amongst the Melanesian rodent holdings at the Museum of Genova are a number of type specimens, including six holotypes, one lectotype, one syntype, paralectotypes for five taxa, and four paratypes (terms used according to INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE 1999). Descriptions of new taxa based on Genova material were published by two sets of authors: Wilhelm

Peters (curator of the Museum of Berlin), both alone and with Giacomo Doria (Director of the Museum of Genova) as co-author, and Michael Rogers Oldfield Thomas of the British Museum (Natural History) in London (BMNH; today the Natural History Museum, London).

For several taxa named by Peters based on material collected by Beccari, D'Albertis, and Bruijn, syntype series were split between the Museum of Genova and the Museum für Naturkunde in Berlin (ZMB). For those named by Oldfield Thomas based on material collected by Loria, for all taxa except *Leptomys elegans*, the unique example of which was retained in Genova, two designated syntypes were in each case automatically divided between London and Genova, an arrangement presumably both convenient to Thomas and deferential to Genova. THOMAS (1897: 607) wrote:

Of each of the new species two "co-types" [i.e. syntypes] have been specially selected for description, one of these being permanently preserved in the Genoa and the other in the British Museum. The remaining members of the series would of course be simple paratypes. *Leptomys elegans* is alone represented by a single example.

For most of these divided syntype series, a lectotype was selected by subsequent revisers, either presumably or explicitly for convenience on the part of future taxonomic workers (RÜMMLER 1938; TATE 1951; TAYLOR *et al.* 1982; MENZIES 1989; MUSSER & CARLETON 2005). In all but a single case (that of *Hydromys beccarii*, see below), the lectotype was selected at BMNH or ZMB rather than at Genova. To the best of our knowledge, only one specimen at Genova remains a syntype - the original "co-type" of *Pogonomys loriae* Thomas, 1897, for which no lectotype has been chosen (the other syntype remains at BMNH; see below).

Finally, we note that other (non-type) mammal specimens secured by Loria have been traded amongst many major European museums (including London, Dresden and Oslo among others), such that the great majority but by no means all of the rodent specimens collected during Loria's efforts are preserved in Genova.

### Holotypes

MSNG 32988, holotype of *Leptomys elegans* Thomas, 1897 (Figs 1, 2).

MSNG 3534, holotype of *Mus beccarii* Peters & Doria, 1881 (not *Mus beccarii* Jentink, 1880) and *Mus doriae* Trouessart, 1897 (currently regarded as synonyms of *Rattus rattus* (Linnaeus, 1758); see below).

MSNG 3491, holotype of *Mus mollipilosus* Peters & Doria, 1881 (now classified as *Pogonomys mollipilosus* (Peters & Doria, 1881); see below) (Figs 3, 4).

MSNG 3460, holotype of *Mus ringens* Peters & Doria, 1881 (currently regarded as a synonym of *Rattus leucopus* (Gray, 1867); see below).

MSNG 3677, holotype of *Uromys bruijnii* Peters & Doria, 1876 (now classified as *Pogonomelomys bruijnii* (Peters & Doria, 1876); see below) (Figs 5, 6).

MSNG 3248, holotype of *Uromys validus* Peters & Doria, 1881 (currently regarded as a synonym of *Uromys caudimaculatus* (Kreff, 1867); see below).

#### Lectotypes

MSNG 3637, lectotype of *Hydromys beccarii* Peters, 1874 (currently regarded as a synonym of *Hydromys chrysogaster* E. Geoffroy, 1804; see below), selected by TATE (1951: 235) (Figs 7, 8).

#### Syntypes

MSNG 3492, syntype of *Pogonomys loriae* Thomas, 1897 (the other syntype is apparently BMNH 97.8.7.47; see TATE 1951: 280).

#### Paralectotypes

MSNG 3501, paralectotype of *Mus gestri* Thomas, 1897 (currently regarded as a synonym of *Rattus sordidus* (Gould, 1858); see below); lectotype (BMNH 97.8.7.36) selected by RÜMMLER (1938: 208); see also TAYLOR *et al.* (1982: 269).

MSNG 3495 (b), paralectotype of *Pogonomys lamia* Thomas, 1897 (now classified as *Chiruromys lamia* (Thomas, 1897); see below); lectotype (BMNH 97.8.7.65) selected by RÜMMLER (1938: 73).

MSNG 3600 (a), paralectotype of *Uromys levipes* Thomas, 1897 (now classified as *Paramelomys levipes* (Thomas, 1897); see below); lectotype (BMNH 97.8.7.72) selected by RÜMMLER (1938: 139); see also MENZIES (1989) and MUSSER & CARLETON (2005).



Fig. 1 - MSNG 32988, holotype of *Leptomys elegans* Thomas, 1897; dorsal and ventral view of the skin.



Fig. 2 - MSNG 32988, holotype of *Leptomys elegans* Thomas, 1897; skull.

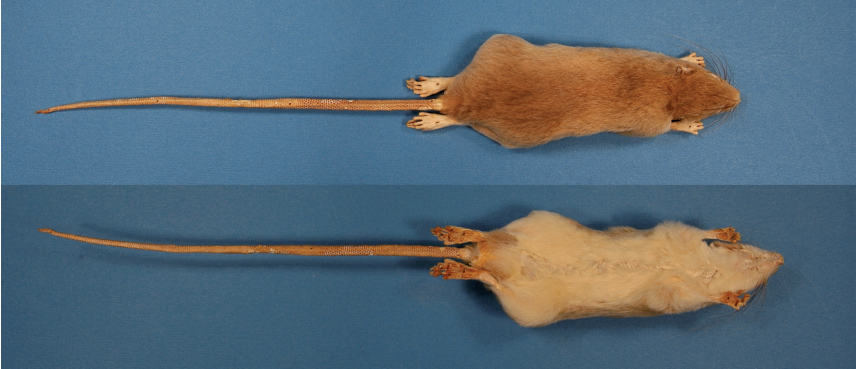


Fig. 3 - MSNG 3491, holotype of *Mus mollipilosus* Peters & Doria, 1881 (now classified as *Pogonomys mollipilosus* (Peters & Doria, 1881)); dorsal and ventral view of the skin.

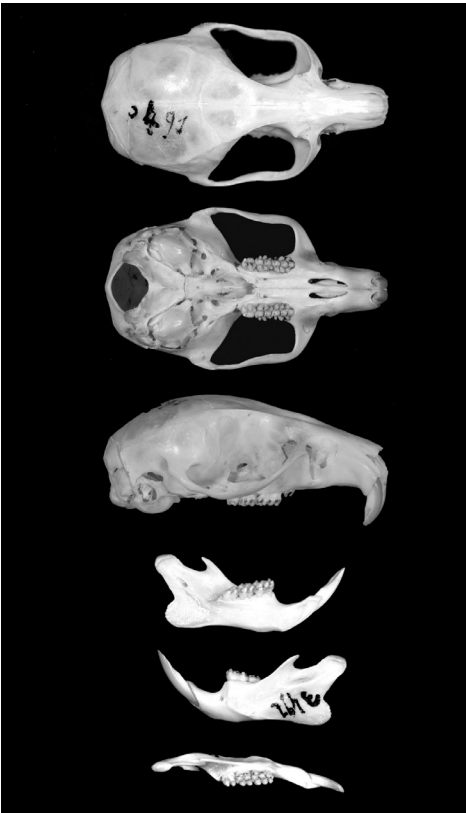


Fig. 4 - MSNG 3491, holotype of *Mus mollipilosus* Peters & Doria, 1881 (now classified as *Pogonomys mollipilosus* (Peters & Doria, 1881)); skull; only the left part of the mandible is present.



Fig. 5 - MSNG 3677, holotype of *Uromys bruijnii* Peters & Doria, 1876 (now classified as *Pogonomelomys bruijnii* (Peters & Doria, 1876)); dorsal and ventral view of the skin.



Fig. 6 - MSNG 3677, holotype of *Uromys bruijnii* Peters & Doria, 1876 (now classified as *Pogonomelomys bruijnii* (Peters & Doria, 1876)); skull.





Fig. 7 - MSNG 3637, lectotype of *Hydromys beccarii* Peters, 1874 (currently regarded as a synonym of *Hydromys chrysogaster* E. Geoffroy, 1804); dorsal and ventral view of the skin.



Fig. 8 - MSNG 3637, lectotype of *Hydromys beccarii* Peters, 1874 (currently regarded as a synonym of *Hydromys chrysogaster* E. Geoffroy, 1804); skull.



MSNG 3474 (a-d), four paralectotypes of *Mus albertisi* Peters & Doria, 1881 (currently regarded as a synonym of *Mus musculus* Linnaeus, 1758; see below); lectotype (ZMB 5423) selected by RÜMLER (1938: 218).

MSNG 3257-57, paralectotype of *Pogonomys lepidus* Thomas, 1897 (currently regarded as a synonym of *Pogonomys macrourus* (Milne-Edwards, 1877); see below), lectotype (BMNH 97.8.7.51) selected by TATE (1951: 279).

#### GAZETTEER

To maximize the usefulness of our catalogue, we have compiled a gazetteer of collecting localities mentioned in the pages below (Fig. 9). Some localities, such as Port Moresby and Yule Island in south-eastern Papua New Guinea, and Humboldt Bay (near Jayapura), Salawati, and Sorong in West Papua refer to well known historical place names in the region and need no detailed explanation to students of the region. Other place names refer to lesser known vil-

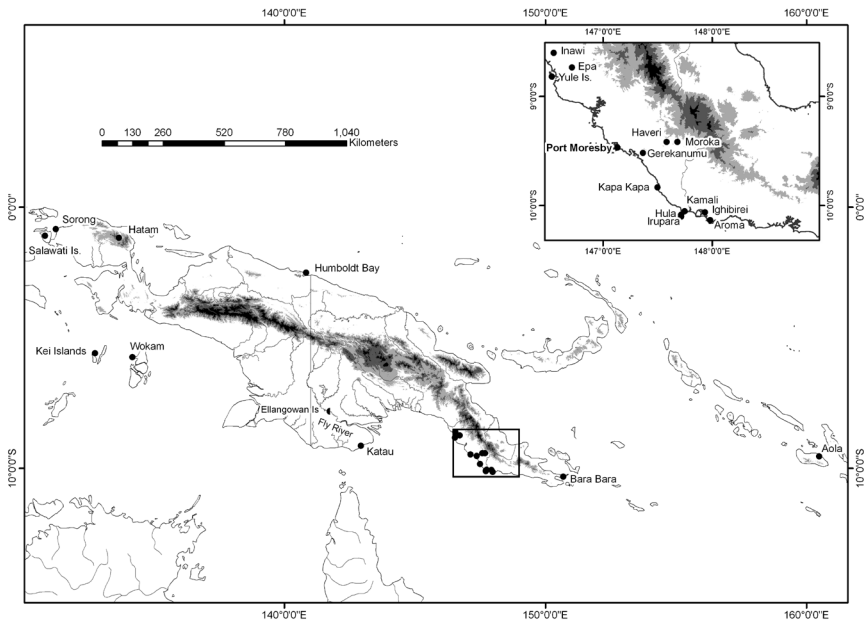


Fig. 9 - Map of collecting localities.

lages or collecting camps, and our understanding of the situation of these localities is clarified and briefly discussed. For locality details we have depended especially on information provided by THOMAS (1897), TATE (1951), LAURIE & HILL (1954), TAYLOR *et al.* (1982) and BONACCORSO (1998).

## INDONESIA

Maluku Province: Weri, Kai Bandan (Kai Besar), Kai Islands

(Beccari collecting locality) The Kai (or Kei) Islands are an oceanic archipelago in the south-eastern Moluccas, lying just off the bathymetric contours of the Australo-Papuan continental shelf, near the Aru Islands. We have been unable to locate this specific locality (Weri) within the archipelago. BECCARI (1924: 239-241) wrote that "Keibandan" is a village lying in a bay placed almost in the middle of the western coast of the Great Kei (the island of Kai Besar) and that, on August 1st [1873], he reached a place [probably Weri] with a forest at about 7-8 miles from Keibandan by a ship; he spent there some days and, on August 9th, he received a "Kedir", a rodent living underground in small holes [probably *Hydromys beccarii*], by indigenous collectors.

Maluku Province: Wokam (05°44'S, 134°11'E), Aru Islands, < 250 m above sea level

(Beccari collecting locality) Wokam is the northernmost of the large islands in the Aru Archipelago, a land-bridge group of islands between New Guinea and the Australian continent. The islands are low-lying, with maximum elevation less than 250 m above sea level.

Papua Province: Humboldt Bay (02°30'S, 140°50'E), near sea level

(Beccari collecting locality) Humboldt Bay is the harbour associated with the port city of Jayapura, formerly Hollandia, the modern capital of Papua Province.

West Irian Jaya Province: Hatam (01°14'S, 134°01'E), *circa* 1000-1500 m above sea level

(Beccari and D'Albertis collecting locality) Hatam is a village on Mt. Arfak in the Arfak Mountains of the Vogelkop ("Bird's

Head”) Peninsula of northwestern New Guinea. According to WALLACE (1880), Hatam is “a village on Mount Arfak, about 3500 feet above the sea”. D’ALBERTIS (1879) referred to the locality as “Mt. Hatam” and gave the maximum elevation of the mountain as 5000 feet. TAYLOR *et al.* (1982: 327) gave the elevation of Hatam as “1200 m” and its coordinates as “01°10’S, 133°40’E”.

West Irian Jaya Province: Salawati Island (01°05’S, 130°53’E), < 700 m above sea level

(Bruijn collecting locality) Salawati (= Salawatti or Salwatti) is a medium sized (*circa* 1600 km<sup>2</sup>), low-lying (0-700 m) land-bridge island in the Raja Ampat group off the northwestern tip of the Vogelkop Peninsula (see D’ALBERTIS 1879).

West Irian Jaya Province: Sorong (00°53’S, 131°15’E), near sea level

(Beccari and D’Albertis collecting locality) The town of Sorong is located on the north-western coast of the Vogelkop Peninsula (see D’ALBERTIS 1879). This locality, often named or labelled “Sorong Island” in older literature or on older specimens, may refer either to the town of Sorong itself or to Pulau Doom, a small island off the coast of Sorong which was an important historical centre of trading in the region (T. Flannery, *in litt.*).

#### PAPUA NEW GUINEA

Central Province: Aroma (10°08’S, 147°59’E), near sea level

(Loria collecting locality) “... Aroma, still further east (10.8 S. 147.59 E.) [of Kapa Kapa and Cape Hood]” (THOMAS 1897: 607). LAURIE & HILL (1954: 140) gave the same coordinates of the modern settlement of Aroma (= Aroma Coast) (10°08’S, 147°59’E).

Central Province: Epa (08°44’S, 146°43’E)

(D’Albertis collecting locality) LAURIE & HILL (1954: 144) gave the coordinates of Epa as “08°44’S, 146°43’E.”

Central District: Gerekanumu (09°31’S, 147°22’E), *circa* 0-200 m above sea level

(Loria collecting locality) “Gerekanumu, on the southern slope of the Astrolabe Range (09.31 S. 147.22 E.)” (THOMAS 1897: 607). LAURIE & HILL (1954: 145) and TAYLOR *et al.* (1982: 322) quoted the same coordinates for this locality (as “Gerekanamu”). TAYLOR *et al.* (1982: 322) gave the elevation at Gerekanamu as “200 m.” The modern settlement of Gereka is situated at 09°30’S, 147°17’E, near sea level.

Central Province: Haveri (09°25’S 147°35’E), *circa* 700 m above sea level

(Loria collecting locality) “Haveri (09.25 S. 147.35 E.) ... among the mountains behind the Astrolabe Range, near Mt. Wori-Wori” (THOMAS 1897: 607). TAYLOR *et al.* (1982: 321) provided these same coordinates, but LAURIE & HILL (1954: 145) and later BONACCORSO (1998: 431) associated this collecting locality with the coordinates “09°25’S, 147°22’E”. TAYLOR *et al.* (1982: 321) gave the elevation of Haveri as “750 m”, though most of Loria’s specimen labels quote the elevation as “700 m”. Tags on the Genova specimens identify this locality with the “Bartholomew Range”. “Mt. Wori-Wori” is today referenced as “Vori Vori Bluff” (A. ALLISON, *in litt.*).

Central Province: Hula (10°06’S, 147°43’E), near sea level

(Loria collecting locality) “Hula, close to the mouth of the [Kemp Welch] river on the promontory that ends in Cape Hood (10.10 S. 147.44 E)” (THOMAS 1897: 607). Some specimen labels give this locality as “Hula, Hood Point”. The modern settlement of Hula is situated at 10°06’S, 147°43’E.

Central Province: Ighibirei (09°43’S, 147°45’E), elevation unknown

(Loria collecting locality) “Ighibirei, on the Kemp Welch river some little way inland” (THOMAS 1897: 607); “just inland from the mouth of the Wanigela River” (LAURIE & HILL 1954: 146). PUTHZ (1971: 453) at first was unable to locate this locality, but later identified it as Boku (09°43’S, 147°45’E) on the basis of a handmade map (PUTHZ 1982: 121). BONACCORSO (1998: 431) gave the coordinates of “Ighibierei” as “10°02’S, 147°46’E”. Only *Chiruromys lamia* (Thomas, 1897), a mouse only known from montane forests (recorded altitudes from 1200–2300 m; FLANNERY 1995a) is represented amongst Loria’s collections from Ighibirei at Genova—an

indication that this collection site was probably situated within this same altitudinal range.

Central Province: Inawi (08°36'S, 146°33'E), near sea level

(Loria collecting locality) "Inawi, on the S. Giuseppe river, which runs into Hall Sound" (THOMAS 1897: 607). LAURIE & HILL (1954: 140) gave the coordinates for "Inawi" (= Inawa) as "08°31'S, 146°35'E". The modern settlement of Inawi (also spelled Inawae) is situated at 08°36'S, 146°33'E.

Central Province: Irupara (10°05'S, 147°43'E), near sea level

(Loria collecting locality) "... Irupara ... close to the mouth of the [Kemp Welch] river on the promontory that ends in Cape Hood (10.10 S. 147.44 E)" (THOMAS 1897: 607); "near Kamali" (LAURIE & HILL 1954: 146). The modern settlement of Irupara is situated at 10°05'S, 147°43'E.

Central Province: Kamali (10°03'S, 147°45'E), near sea level

(Loria collecting locality) "Kamali ... close to the mouth of the [Kemp Welch] river on the promontory that ends in Cape Hood (10.10 S. 147.44 E)" (THOMAS 1897: 607). BONACCORSO (1998: 432) gave the same coordinates quoted for Cape Hood (i.e. 10°10'S, 147°44'E) as the position of Kamali. Some specimen labels give this locality as "Hood Bay, Kamali". LAURIE & HILL (1954: 147) gave the coordinates of Kamali as "10°02'S, 147°45'E", and the modern settlement of Kamali is situated at 10°03'S, 147°45'E.

Central Province: Kapa Kapa (09°50'S, 147°30'E), near sea level

(Loria collecting locality) "Kapa Kapa (9.50 S. 147.30 E.) ... a little further east [of Cape Hood] ... on the sea coast" (THOMAS 1897: 607); at the "mouth of the Kemp Welch River" (TATE 1951: 420). LAURIE & HILL (1954: 147) quoted these same coordinates for Kapa Kapa (i.e. 09°50'S, 147°30'E). BONACCORSO (1998: 432) gave the coordinates for Kapa Kapa as "09°48'S, 147°30'E".

Central Province: Moroka (09°25'S, 147°41'E), *circa* 1300 m above sea level

(Loria collecting locality) "Moroka (09.25 S. 147.41 E.), among the mountains behind the Astrolabe Range, near Mt. Wori-Wori"

(THOMAS 1897: 607); at the “headwaters of the Musgrave River” (TATE 1940: 2). LAURIE & HILL (1954: 151) gave the coordinates of this locality as “09°24’S, 147°32’E”. Loria’s specimen labels quote the elevation of Moroka as “1300 m.”. Tags on the Genova specimens identify this locality with the “Bartholomew Range”. “Mt. Wori-Wori” is today referenced as “Vori Vori Bluff” (A. ALLISON, *in litt.*).

Central Province: Yule Island (08°49’S, 146°32’E), near sea level

(D’Albertis collecting locality) Yule is a small, low-lying land bridge island near the modern settlement of Poukama. Between Yule and the mainland is Hall Sound, long an important harbour in Papua New Guinea.

Milne Bay Province: Bara Bara (10°19’S, 150°41’E), near sea level

(Loria collecting locality) “... one locality, Bara Bara, is opposite Killerton Island in Milne Bay at the extreme S.E. corner of New Guinea” (THOMAS 1897: 607). BONACCORSO (1998: 428) gave the coordinates for this locality (erroneously, in our assessment) as 09°07’S, 149°19’E. LAURIE & HILL (1954: 140) gave coordinates for the “Bara Bara River” on mainland New Guinea as 10°19’S, 150°41’E, and Killerton Island is located at 10°21’S, 150°40’E. The modern settlement of Barabara is now located on Normanby Island in the D’Entrecasteaux Archipelago and is situated at 10°08’S, 151°07’E. As a result, McDOWELL (1975) erroneously associated this collecting locality with Normanby Island.

National Capital District: Port Moresby (09°28’S, 147°08’E)

Port Moresby is the capital and largest city in the nation of Papua New Guinea.

Two specimens are labelled “Port Moresby, D’Albertis” but L. M. D’Albertis never visited this locality; these specimens were instead probably collected by L. Loria.

Western Province: Fly River (southwestern region)

(D’Albertis collecting locality) D’Albertis made three expeditions up the Fly River in 1875, 1876 and 1877, and collected extensively along the river (particularly birds and plants), although



exact localities are unclear. On his first journey he reached as far as Ellangowan Island ( $7^{\circ}49'S$   $141^{\circ}41'E$ ). On his second expedition up the Fly River he claimed to have reached  $05^{\circ}30'S$  before being forced back by low waters and lack of supplies, but Sir William MacGregor who later explored the Fly, doubted that he had passed  $06^{\circ}11'S$  (GIBBNEY 1972). His final expedition was beset with problems, and he did not reach as far as he had on his second expedition.

Western Province: Katau ( $09^{\circ}00'S$ ,  $143^{\circ}00'E$ )

(D'Albertis collecting locality) Katau lies in the south-eastern TransFly area to the west of the Fly River, and D'Albertis visited this locality on each of his three expeditions up the Fly River: "at anchor here in the little river Kataw, in sight of the houses of Moatta (= Mawatta), which are 800 or 1000 yards from us" (D'ALBERTIS 1880: 162). He had an extended stay there (August 7<sup>th</sup> to November 2<sup>nd</sup> 1876) due to bad weather on his second expedition and in this period probably the majority of his specimens were collected. He also purchased animals from people from surrounding villages, including the village of Matzingare. This river is also known as the Binaturi River (LOVERIDGE 1948).

#### SOLOMON ISLANDS

Guadalcanal Province: "Guadalcanar" (= Guadalcanal), altitude unknown

(Woodford collecting locality) One specimen of *Uromys rex* at Genova was collected in Guadalcanal by Woodford; the specimen is labelled "Guadalcanar" which is the archaic name of Guadalcanal. Other native murids collected by Woodford on Guadalcanal were all taken at Aola ( $09^{\circ}32'S$ ,  $160^{\circ}29'E$ ), on the north-eastern coast of the island (THOMAS 1888).

#### FORMAT

The species are listed in alphabetical order according to genus and species. For each record we give the following information:

Catalogue number of the Museum of Genova (MSNG); for

numerous series the number is followed by a letter, a number or a roman number in brackets, or a number after a line. In some cases, specimens from other museums are discussed, under the following museum abbreviations: BMNH (Natural History Museum, London); ZMB (Museum für Naturkunde, Humboldt Universität, Berlin).

Locality of collection: country, province, and geographical locality and, when clearly indicated on the original label, altitude above sea level. Refer to the gazetteer (above) for further details on some collection localities.

Details of collection: the collecting date is given in arabic numerals (day), roman numerals (month) and arabic numerals (year), for instance "3.VI.1873". The collector is indicated with the first letter of the first (Christian) name (and sometimes of the middle name) and the entire surname, e.g. "L. Loria" or "L. M. D'Albertis".

Nature of specimen: number of specimens, sex and stage of development are given: ♂ = male, ♀ = female, juv. = young. Type specimens have been identified above and in the accounts that follow. Specimens are preserved as one of the following preparations: skin; skull; skin and skull; or alcohol (preserved in ethanol); for some specimens preserved in alcohol the skull has been prepared to better identify the species. We note that many of the skins in the collection were prepared in 1937 from carcasses stored in fluid, long after their date of collection.

Order **RODENTIA** Bowdich, 1821

Family **MURIDAE** Illiger, 1811

Subfamily **MURINAE** Illiger, 1811

*Chiruromys forbesi* Thomas, 1888

MSNG 3258 (a-c). Papua New Guinea, Milne Bay Province, Bara Bara, I-II.1890, L. Loria; 1 ♂ (b), 1 ♂ juv. (a), 1 ♀ (c), skin and skull.

MSNG 3521. Papua New Guinea, Milne Bay Province, Bara Bara, I-II.1890, L. Loria; 1 ♂ juv., skin and skull.

MSNG 3521 (a-d). Papua New Guinea, Milne Bay Province, Bara Bara, I-II.1890, L. Loria; 2 ♂♂ (b and d), 2 ♀♀ (a and c), skin and skull.

MSNG 52759. Papua New Guinea, Milne Bay Province, Bara Bara, I-II.1890, L. Loria; 1 ♀, alcohol and skull.

**Remarks.** The type series of *Pogonomys forbesi vulturinus* Thomas, 1920 (a synonym of *Chiruromys forbesi*) are specimens from this same series, collected by Loria at Bara Bara in 1890, but sent to Oldfield Thomas in London (see THOMAS 1920).

***Chiruromys lamia*** (Thomas, 1897)

MSNG 3495 (a). Papua New Guinea, Central Province, Ighibirei, 1890, L. Loria; 1 ♂, skin and skull, paratype of *Pogonomys lamia* Thomas, 1897.

MSNG 3495 (b). Papua New Guinea, Central Province, Ighibirei, 1890, L. Loria; 1 ♀, skin and skull, paralectotype of *Pogonomys lamia* Thomas, 1897.

**Remarks.** THOMAS (1897) originally described this species based on seven specimens collected by Loria from Ighibirei (designated as the type locality) and Haveri. Of the five specimens from Ighibirei, Thomas identified two as “cotypes” (= syntypes—apparently the specimens now designated as BMNH 97.8.7.65 and MSNG 3495 (b)). We accept RÜMMLER’S (1938: 73) reference to the BMNH specimen as “the type” (i.e. “der Typus”) as a lectotype designation for *lamia*. MSNG 3495 (b) is thus a paralectotype.

***Chiruromys vates*** (Thomas, 1908)

MSNG 54203. Papua New Guinea, Central Province, Bartholomew Range, Haveri, VIII-XI.1893, L. Loria; 1 ♀, skin and skull, paratype of *Pogonomys lamia* Thomas, 1897. Ex MSNG 3495 (a).

**Remarks.** This specimen formed part of Thomas’ original hypodigm of *Chiruromys lamia* (see THOMAS 1897). However, we now

identify it instead as *Chiruromys vates* (Thomas, 1908), on account of its richer coloration, smaller molars, shorter incisive foramina, and less expanded zygomata relative to the type (and other) specimens of *C. lamia* (cf. THOMAS 1908). Further, *C. lamia* is a montane mouse (firmly identified specimens are known only from elevations at and above 1200 m; FLANNERY 1995a), while *C. vates* is widely distributed in the lowlands of southern and southeastern New Guinea (sea level to 1500 m; FLANNERY 1995a). Haveri, the site where this specimen is collected, is apparently situated at approximately 700 m above sea level (see Gazetteer, above). Unfortunately, the first and second authors made only cursory examination of this specimen when visiting Genova, so we recommend that this identification be revisited by future examiners.

***Hydromys chrysogaster*** E. Geoffroy, 1804

MSNG 3637. Indonesia, Maluku Province, Kai Islands, Kai Bandan, Weri, without collecting date, O. Beccari; 1 ♂, skin and skull, lectotype of *Hydromys beccarii* Peters, 1874. TATE (1951) gave erroneously the number 3627 for this specimen (Figs 7, 8).

MSNG 3663. Papua New Guinea, Central Province, Bartholomew Range, Haveri, VIII-XI.1893, L. Loria; 1 ♀ juv., skin and skull.

**R e m a r k s .** PETERS (1874) based his description of *Hydromys beccarii* on two syntypes, one deposited in Genova (MSNG 3637), the other in Berlin (ZMB 4805). TATE (1951: 191) acknowledged the two syntypes before referring to the Genova specimen as the “type” of *beccarii* (p. 235; though he gave the number as MSNG 3627), and we accept this as a lectotype designation.

Though *Hydromys beccarii* Peters, 1874 is usually regarded as a synonym of the large and widespread species *Hydromys chrysogaster*, patterns of geographic variation in *H. chrysogaster* remain little studied (TATE 1951; HELGEN 2005), and as currently recognized, this widespread species is likely to represent a complex of related species. As the oldest name applied to a Melanesian population of *Hydromys*, further study may show that the epithet *beccarii* is the most appropriate name for a distinct species endemic to the Melanesian region.

***Leptomys elegans*** Thomas, 1897

MSNG 32988. Papua New Guinea, Central Province, Astrolabe Range, without collecting date, L. Loria; 1 ♀, skin and skull, holotype of *Leptomys elegans* Thomas, 1897 (Figs 1, 2).

**R e m a r k s .** MUSSER *et al.* (in press) provided a comprehensive overview of the taxonomy and biology of the genus *Leptomys*, the type species of which is *L. elegans*. The original details of collection for the holotype of *elegans* are not recorded. According to MUSSER *et al.* (in press):

The tag of the holotype bears no definite locality other than “British N.G.”, and no exact provenance was published in the original description of *L. elegans*, although Thomas (1897: 607) wrote that Loria’s localities “are mostly between the Owen Stanley Range and the sea, in or near the watershed of the Kemp Welch river”, an area that would include the Astrolabe Range and adjacent Sogeri Plateau. TATE (1951: 223) observed that “Loria collected in the Astrolabe Range behind Port Moresby”, and we regard specimens from the Astrolabe Range (available at AMNH and ZMB) as totypical.

***Melomys leucogaster*** (Jentink, 1908)

MSNG 3609 (a and b). Papua New Guinea, Central Province, Hood Bay, Kamali, III.1891, L. Loria; 1 ♂ (b), 1 ♀ (a), skin and skull.

MSNG 3616. Papua New Guinea, Central Province, Bartholomew Range, Haveri, VIII-XI.1893, L. Loria; 1 ♂, skin and skull.

MSNG 54204. Papua New Guinea, Central Province, Yule Island, IV.1875, L. M. D’Albertis; 1 ♀, skin and skull. Ex MSNG 3200 (2).

MSNG 54207. Papua New Guinea, Central Province, Yule Island, 1875, L. M. D’Albertis; 1 ♂, skin and skull. Ex MSNG 3240-17.

***Melomys lutillus*** (Thomas, 1913)

MSNG 3601. Papua New Guinea, Central Province, Astrolabe Range, Gerekanumu, II.1893, L. Loria; 1 ♂ juv., skin and skull.

MSNG 43956. Papua New Guinea, without collecting date, L. M. D’Albertis; 1 specimen, alcohol.

MSNG 54206 (a and b). Papua New Guinea, Central Province, Epa, IV.1875, L. M. D'Albertis; 1 ♂ (a) ex MSNG 3240-14, 1 ♀ (b) ex MSNG 3240-16, skin and skull.

MSNG 54212. Papua New Guinea, National Capital District, Port Moresby, without collecting date, [L. M. D'Albertis in the label but probably L. Loria; see Gazetteer, above]; 1 ♂, skin and skull. Ex MSNG 3507 (1).

***Melomys rufescens*** (Alston, 1877)

MSNG 3240- (13, 15 and 18). Papua New Guinea, Western Province, Fly River, 1875, L. M. D'Albertis; 2 ♂♂ (13 and 18), 1 ♀ (15), skin and skull.

MSNG 3507 (2). Papua New Guinea, National Capital District, Port Moresby, without collecting date, [L. M. D'Albertis in the label but probably L. Loria; see Gazetteer, above]; 1 ♂, skin and skull.

MSNG 42139 (I and II). Papua New Guinea, Western Province, Fly River, 1875, L. M. D'Albertis; 1 ♀ (I), 1 juv. (II), alcohol and skull.

MSNG 42139 (III and IV). Papua New Guinea, Central Province, Epa, 1875, L. M. D'Albertis; 2 juv., alcohol and skull.

MSNG 42139 (V). Papua New Guinea, without collecting date, L. M. D'Albertis; 1 juv., alcohol and skull.

MSNG 54202. Papua New Guinea, Central Province, Bartholomew Range, Haveri, VIII-XI.1893, L. Loria; 1 ♂ juv., skin and skull. Ex MSNG 3669.

MSNG 54205. Indonesia, West Irian Jaya Province, Mount Arfak, Hatam, 1875, L. M. D'Albertis; 1 ♀, skin and skull. Ex MSNG 3240-12.

MSNG 54209 (a and b). Papua New Guinea, Central Province, Kapa Kapa, VII.1889, L. Loria; 1 ♂ (b), 1 ♀ (a), skin and skull. Ex MSNG 3256.

MSNG 54214. Papua New Guinea, Central Province, Bartholomew



Range, Haveri, VIII-XI.1893, L. Loria; 1 ♀, skin and skull. Ex MSNG 3616 (2).

***Mus musculus*** Linnaeus, 1758

MSNG 3474 (a-d). Indonesia, West Irian Jaya Province, Sorong, without collecting date, L. M. D'Albertis; 1 ♂ juv. (d), 2 ♀♀ (a and b), 1 ♀ juv. (d), skin and skull, paralectotypes of *Mus albertisi* Peters & Doria, 1881.

MSNG 3669. Papua New Guinea, without collecting date, L. Loria; 1 ♀, skin and skull.

**R e m a r k s .** Peters & Doria's (1881) name *Mus albertisi* is a synonym of *Mus musculus* Linnaeus, 1758; the name was applied to a series of commensal house mice collected by D'Albertis at Sorong, including four of the specimens listed above. RÜMMLER (1938: 218) identified a syntype in Berlin (ZMB 5423) as the "type" of *albertisi*, which we accept as a lectotype designation. The four former syntypes MSNG 3474 (a-d) are thus paralectotypes.

***Paramelomys levipes*** (Thomas, 1897)

MSNG 3600 (a). Papua New Guinea, Central Province, Bartholomew Range, Haveri, 700 m above sea level, VIII-XI.1893, L. Loria; 1 ♂, skin and skull, paralectotype of *Uromys levipes* Thomas, 1897.

MSNG 3600 (b). Papua New Guinea, Central Province, Astrolabe Range, Gerekanumu, II.1893, L. Loria; 1 ♂, skin and skull, paratype of *Uromys levipes* Thomas, 1897.

**R e m a r k s .** THOMAS' (1897) description of *Uromys levipes* was based on these two "co-types" (= syntypes) collected by Loria at Haveri, apparently BMNH 97.8.7.72 (received by London from Genova) and MSNG 3600 (a). MENZIES (1989) formally designated BMNH 97.8.7.72 as the lectotype of *levipes*, but we judge that RÜMMLER (1938) had already fixed a lectotype by his indication that Thomas'

BMNH syntype should be considered “the type” (see also MUSSER & CARLETON 2005: 1432). MSNG 3600 (a) is thus a paralectotype.

***Paramelomys lorentzii*** (Jentink, 1908)

MSNG 3200 (1). Papua New Guinea, Western Province, Fly River, IV.1875, L. M. D’Albertis; 1 ♂, skin and skull.

***Pogonomelomys bruijnii*** (Peters & Doria, 1876)

MSNG 3677. Indonesia, West Irian Jaya Province, Salawati Island, 1875, A. A. Bruijn; 1 ♂, skin and skull, holotype of *Uromys bruijnii* Peters & Doria, 1876 (Figs 5, 6).

**Remarks.** Two species are now recognized within the genus *Pogonomelomys* (MUSSER & CARLETON 2005), but the true diversity represented among museum collections is much greater (HELGEN & APLIN, *in litt.*). The holotype of *Pogonomelomys bruijnii* from Salawati remains morphologically unique. FLANNERY (1995a: 312) referred a series of *Pogonomelomys* specimens collected on the mainland of the Vogelkop Peninsula (from the localities Djitman and Aijinjo, deposited in the Naturalis Museum, Leiden) to *bruijnii*. This may be a correct attribution, but we note that these specimens are considerably smaller than the holotype of *bruijnii* in cranial and dental size (e.g. crown length of molar row 8.1 mm in the holotype *versus* 6.9-7.3 mm in the series of three adults from the Vogelkop). Only subfossil material from the Vogelkop Peninsula reported by APLIN *et al.* (1999: 379) matches the holotype of *bruijnii* in size; the Leiden series better corresponds to a taxon that APLIN *et al.* (1999: 379-380) identify as “*Pogonomelomys* sp.” A full review of the genus based on all available specimens, modern and subfossil, is needed.

***Pogonomys loriae*** Thomas, 1897

MSNG 3259. Papua New Guinea, Central Province, Bartholomew Range, Haveri, 700 m above sea level, VIII-XI.1893, L. Loria; 1 ♀, skin and skull.

MSNG 3492. Papua New Guinea, Central Province, Bartholomew Range, Haveri, 700 m above sea level, VIII-XI.1893, L. Loria; 1 ♀, skin and skull, syntype of *Pogonomys loriae* Thomas, 1897.

MSNG 3492 (a and b). Papua New Guinea, Central Province, Bartholomew Range, Haveri, 700 m above sea level, VIII-XI.1893, L. Loria; 1 ♂ (a) paratype, 1 ♂ juv. (b), skin and skull.

MSNG 3493 (a). Papua New Guinea, Central Province, Astrolabe Range, Gerekanumu, II.1893, L. Loria; 1 ♀, skin and skull.

MSNG 34292. Papua New Guinea, Central Province, Bartholomew Range, Moroka, 1300 m above sea level, VII-VIII.1893, L. Loria; 1 ♀, skin and skull.

MSNG 54210. Papua New Guinea, Central Province, Bartholomew Range, Haveri, VIII-XI.1893, L. Loria; 1 ♂, skin and skull. Ex MSNG 3257-66.

*Remarks.* THOMAS' (1897) two original "co-types" of *Pogonomys loriae* are apparently MSNG 3492 and BMNH 97.8.7.47 (see TATE 1951: 280). As far as we are aware, no lectotype has been designated.

***Pogonomys macrourus*** (Milne-Edwards, 1877)

MSNG 3257- (50-71; except 66, see *Pogonomys loriae* MSNG 54210). Papua New Guinea, Central Province, Bartholomew Range, Haveri, VIII-XI.1893, L. Loria; 1 ♂ (57) paralectotype of *Pogonomys lepidus* Thomas, 1897, 13 ♂♂ (51, 56, 59, 60, 61, 62, 63, 64, 67, 68, 69, 70 and 71), 7 ♀♀ (50, 52, 53, 54, 55, 58 and 65), skin and skull.

MSNG 3670. Papua New Guinea, Central Province, Bartholomew Range, Haveri, 700 m above sea level, VIII-XI.1893, L. Loria; 1 ♀ juv., skin and skull.

MSNG 34293-2. Papua New Guinea, Central Province, Bartholomew Range, Haveri, VIII-XI.1893, L. Loria; 1 ♂, skin and skull.

MSNG 34294-1. Papua New Guinea, Central Province, Bartholomew Range, Haveri, VIII-XI.1893, L. Loria; 1 ♂, skin and skull.

MSNG 34295 (a-c). Papua New Guinea, Central Province, Bartholomew Range, Haveri, VIII-XI.1893, L. Loria; 3 ♀♀, skin and skull.

MSNG 34296. Papua New Guinea, Central Province, Bartholomew Range, Haveri, VIII-XI.1893, L. Loria; 1 ♀ juv., skin and skull.

MSNG 42217 (I-IV). Papua New Guinea, Central Province, Bartholomew Range, Haveri, 700 m above sea level, VIII-XI.1893, L. Loria; 2 ♂♂ (I and II), 2 ♀♀ (III and IV), alcohol and skull.

MSNG 54211. Papua New Guinea, Central Province, Astrolabe Range, Gerekanumu, II.1893, L. Loria; 1 ♀, skin and skull. Ex MSNG 3493 (b).

**R e m a r k s .** THOMAS (1897) based his description of *Pogonomys lepidus* on two syntypes, apparently MSNG 3257-57 and BMNH 97.8.7.51. We accept TATE'S (1951: 279) reference to the BMNH specimen as the "type" of *lepidus* as a lectotype designation. MSNG 3257-57 is thus a paralectotype.

***Pogonomys mollipilosus*** (Peters & Doria, 1881)

MSNG 3491. Papua New Guinea, Western Province, Katau, without collecting date, L. M. D'Albertis; 1 ♂, skin and skull, holotype of *Mus mollipilosus* Peters & Doria, 1881 (Figs 3, 4).

**R e m a r k s .** Few specimens of *Pogonomys* have been collected in the TransFly region of southern New Guinea, and the taxonomic status of *Pogonomys mollipilosus* has never been satisfactorily resolved. DENNIS & MENZIES (1979: 322) observed that "the possibility that *mollipilosus* is an Australian species occurring in New Guinea only in the lower Fly River region cannot be ignored", and Australian samples of *Pogonomys* have been explicitly discussed under the name *Pogonomys mollipilosus* (WINTER & WHITFORD 1995), thus assumed to represent a distinct species occurring in Australia and the TransFly. MUSSER & CARLETON (1993, 2005) believed that the holotype of *mollipilosus* to be a specimen of the widespread lowland New Guinea taxon *Pogonomys macrourus* and synonymized it accordingly, but the last revisionary treatment of *Pogonomys* that involved firsthand com-

parisons of the holotype of *mollipilosus* was the review published by DENNIS & MENZIES (1979).

Our own examination of the young holotype (HELGEN 2007: 747) indicates that it is a larger-toothed rat compared to samples of *P. macrourus*, probably does not belong within the synonymy of that taxon as currently recognized (MUSSER & CARLETON 2005), and possibly shows a closer morphological resemblance to the larger-bodied species *P. loriae*. Taxonomic boundaries within the genus *Pogonomys* remain very poorly understood and must be evaluated in the context of morphometric and genetic examinations of a sufficient sample drawing from type material and the very large number of specimens and sampling localities now represented in world museums.

***Rattus exulans*** (Peale, 1848)

MSNG 3151. Papua New Guinea, Central Province, Kapa Kapa, VII.1891, L. Loria; 1 ♂ and 1 ♀, skin and skull.

MSNG 3167. Papua New Guinea, Milne Bay Province, Bara Bara, I-II.1890, L. Loria; 2 ♀♀, skin and skull.

MSNG 3249- (6-11). Indonesia, Papua Province, Humboldt Bay, XII.1875, O. Beccari; 3 ♂♂ (7, 9 and 11), 3 ♀♀ (6, 8 and 10), skin and skull.

MSNG 3250 (a-d). Indonesia, West Irian Jaya Province, Mount Arfak, Hatam, VI.1875, O. Beccari; 1 ♂ (c), 3 ♀♀ (a, b and d), skin and skull.

MSNG 3255. Papua New Guinea, Central Province, Aroma Bay, IX.1889, L. Loria; 17 juv., alcohol.

MSNG 3255- (20-49; except 22, 28, 29). Papua New Guinea, Central Province, Aroma Bay, IX.1889, L. Loria; 13 ♂♂ (21, 23, 24, 25, 27, 34, 35, 38, 44, 46, 47, 48 and 49), 14 ♀♀ (20, 26, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 45), skin and skull.

MSNG 3255- (001-008). Papua New Guinea, Central Province, Aroma Bay, IX.1889, L. Loria; 5 ♂♂ (001, 002, 005, 006 and 007), 3 ♀♀ (003, 004 and 008), skin and skull.

MSNG 3256 (c and d). Papua New Guinea, Central Province, Kapa Kapa, VII.1891, L. Loria; 1 ♂ (d), 1 ♀ (c), skin and skull.

MSNG 3505. Papua New Guinea, Central Province, Mekeo District, Inawi, IX.1892, L. Loria; 1 ♂, skin and skull.

MSNG 3508. Papua New Guinea, Central Province, Hula, Hood Point, VIII.1889, L. Loria; 1 ♀, skin and skull.

MSNG 3509. Papua New Guinea, Central Province, Irupara, VIII.1890, L. Loria; 1 ♂, skin and skull.

MSNG 3518 (a-e). Papua New Guinea, Central Province, Aroma Bay, IX.1889, L. Loria; 1 ♂ juv. (d), 4 ♀♀ (a, b, c and e), skin and skull.

MSNG 5043. Papua New Guinea, Milne Bay Province, Bara Bara, I-II.1890, L. Loria; 1 ♀, skull.

MSNG 38829 (a-d). Papua New Guinea, Central Province, Aroma Bay, IX.1889, L. Loria; 1 ♂ (a), 1 ♀ (b), 2 specimens (c and d), skin and skull.

MSNG 52753. Papua New Guinea, Milne Bay Province, Bara Bara, I-II.1890, L. Loria; 1 ♂, alcohol and skull.

MSNG 52755. Papua New Guinea, Central Province, Bartholomew Range, Haveri, XI.1893, L. Loria; 1 ♀, alcohol and skull.

***Rattus leucopus*** (Gray, 1867)

MSNG 3219. Papua New Guinea, Western Province, Katau, without collecting date, L. M. D'Albertis; 1 ♂ juv., skin and skull.

MSNG 3244 (a-e). Indonesia, Maluku Province, Aru Islands, Wokam, 29.II-3.VI.1873, O. Beccari; 2 ♂♂ (b and c), 2 ♀♀ (a and d), skin and skull; 1 juv. (e), alcohol.

MSNG 3460. Papua New Guinea, Western Province, Fly River, without collecting date, L. M. D'Albertis; 1 ♀, skin and skull, holotype of *Mus ringens* Peters & Doria, 1881.

MSNG 3506. Papua New Guinea, Central Province, Astrolabe Range, Gerekanumu, II.1893, L. Loria; 1 ♂, skin and skull.



MSNG 52752. Papua New Guinea, Central Province, Kapa Kapa, VI-VII.1891, L. Loria; 1 ♂ juv., alcohol and skull.

MSNG 54201. Papua New Guinea, Western Province, Katau, without collecting date, L. M. D'Albertis; 3 juv., alcohol. Ex MSNG 3219.

MSNG 54208. Papua New Guinea, Fly River, 1875, L. M. D'Albertis; 1 ♂ juv., skin and skull. Ex MSNG 3240-19.

**Remarks.** As far as we are aware, FLANNERY (1995b) provided the first published record of a native *Rattus* species in the Aru Islands when he reported *R. leucopus* from Aru based on two specimens deposited at the Australian Museum in Sydney. Flannery and earlier reviewers, such as TAYLOR *et al.* (1982), apparently overlooked Beccari's series of *Rattus* from the Aru Islands in Genova, which we refer to *Rattus leucopus*.

According to FLANNERY (1995b), the Aru specimens referred to *R. leucopus* in the Australian Museum have four pairs of mammae, but *Rattus leucopus* from mainland New Guinea and Australia have only three pairs (TAYLOR *et al.* 1982; TAYLOR & HORNER 1973), as does the only one of the Genova Aru specimens in which the formula can be determined, MSNG 3244 (d). Aru specimens (both in Sydney and Genova) warrant further examination to establish their taxonomic status relative to other populations identified as *R. leucopus* (MUSSER & CARLETON 2005).

***Rattus mordax*** (Thomas, 1904)

MSNG 3494. Papua New Guinea, Central Province, Bartholomew Range, Haveri, 700 m above sea level, VIII-XI.1893, L. Loria; 1 ♂, skin and skull.

***Rattus rattus*** (Linnaeus, 1758)

MSNG 3534. Indonesia, West Irian Jaya Province, Sorong, 1875, O. Beccari; 1 ♀, skin and skull, holotype of *Mus beccarii* Peters & Doria, 1881 and *Mus doriae* Trouessart, 1897.

MSNG 3535. Indonesia, West Irian Jaya Province, Sorong, without collecting date, L. M. D'Albertis; 1 ♂, skin and skull.

MSNG 3536. Indonesia, West Irian Jaya Province, Sorong, without collecting date, L. M. D'Albertis; 1 ♀, skin and skull.

MSNG 3537. Papua New Guinea, Western Province, Fly River, without collecting date, L. M. D'Abertis; 1 ♀ juv., skin and skull.

MSNG 3538. Indonesia, West Irian Jaya Province, Sorong, 1872, L. M. D'Albertis; 1 juv., alcohol.

MSNG 54194. Indonesia, West Irian Jaya Province, Sorong, without collecting date, L. M. D'Albertis; 1 juv., alcohol.

**R e m a r k s .** PETERS & DORIA (1881) based the name *Mus beccarii* on MSNG 3534, a commensal house rat collected at Sorong. Noting that this name was preoccupied by *Mus beccarii* Jentink, 1880 (now *Margaretamys beccarii*; see MUSSER & CARLETON 2005), TROUËSSART (1897: 472) introduced the name *Mus doriae* to replace it.

***Rattus sordidus*** (Gould, 1858)

MSNG 3260 (a and b). Papua New Guinea, Central Province, Kapa Kapa, VI-VII.1891, L. Loria; 1 ♂ (a), 1 ♀ (b), skin and skull.

MSNG 3501. Papua New Guinea, Central Province, Kapa Kapa, V-VI.1891, L. Loria; 1 ♂, skin and skull [MSNG 3501 (a)], paralectotype of *Mus gestri* Thomas, 1897.

MSNG 3501 (b - e). Papua New Guinea, Central Province, Kapa Kapa, V-VII.1891, L. Loria; 1 ♂ (c), 2 ♀♀ (b and d), skin and skull; 1 ♂ (e), alcohol.

**R e m a r k s .** THOMAS' (1897) description of *Mus gestri* was based on these two "co-types" (= syntypes) collected by Loria at Kapa Kapa, apparently MSNG 3501 and BMNH 97.8.7.72. TAYLOR *et al.* (1982: 269) formally designated BMNH 97.8.7.72 as the lectotype of *levipes*, but we judge that RÜMMLER (1938: 208) had already fixed a lectotype by his indication that Thomas' BMNH syntype should be considered the "type" ("der Typus"). MSNG 3501 is a paralectotype.

***Rattus verecundus*** (Thomas, 1904)

MSNG 3517. Papua New Guinea, Central Province, Bartholomew Range, Moroka, 1300 m above sea level, X.1893, L. Loria; 1 ♀, skin and skull.

***Uromys caudimaculatus*** (Krefft, 1867)

MSNG 3248. Papua New Guinea, Western Province, Katau, without collecting date, L. M. D'Albertis; 1 specimen, skin, holotype of *Uromys validus* Peters & Doria, 1881.

MSNG 3605 (a). Papua New Guinea, Central Province, Kapa Kapa, VII.1891, L. Loria; 1 ♂, skin and skull.

MSNG 3605 (b). Papua New Guinea, Central Province, Aroma Bay, IX.1889, L. Loria; 1 specimen, skin and skull.

**R e m a r k s .** The holotype of *Uromys validus* is represented at Genova only by a skin, and TATE (1951) suspected that the accompanying skull was lost. The first author recently discovered the type skull at BMNH, misplaced in a drawer with type specimens of other *Uromys*. We advocate the return of the skull to Genova to reunite the type material of *Uromys validus*.

Though *Uromys validus* Peters & Doria, 1881 is usually regarded as a synonym of the large and widespread species *Uromys caudimaculatus*, patterns of geographic variation in Melanesian *Uromys* remain poorly understood (MUSSEY & CARLETON 2005). As currently recognized, "*Uromys caudimaculatus*" is likely to represent a complex of related species. As the oldest name applied to a Melanesian population of *Uromys*, further study may show that the epithet *validus* is the most appropriate name for a distinct species endemic to the Melanesian region.

***Uromys nero*** Thomas, 1913

MSNG 54213. Papua New Guinea, Central Province, Bartholomew Range, Haveri, VIII-XI.1893, L. Loria; 1 ♂, skin and skull. Ex MSNG 3605 (c).

**R e m a r k s .** Following the revision presented by TATE (1951), many large scansorial rat species from New Guinea and north-eastern Australia have been lumped together under the name “*Uromys caudimaculatus*” (e.g. FLANNERY 1995a, 1995b). These include specimens from populations that HELGEN (2007) refers to a number of distinct species, including *U. nero* and *U. scaphax*, in advance of a formal revision (MUSSER & CARLETON 2005). We tentatively associate this specimen with the name *Uromys nero* Thomas, 1913, an identification that awaits detailed exposition in a future review of the *caudimaculatus* species-complex (HELGEN 2007).

***Uromys rex*** (Thomas, 1888)

MSNG 3459. Solomon Islands, Guadalcanal Province, Guadalcanal, 6.V.1889, C. M. Woodford; 1 ♂, skin and skull; bought by Gerrard.

**R e m a r k s .** Only a handful of specimens of *Uromys rex* are preserved in world museums (see GROVES & FLANNERY 1994). The holotype and three paratypes of *Uromys rex*, all collected at Aola by Woodford, are preserved at BMNH (THOMAS 1888; TATE 1951). It is unclear whether MSNG 3459 was collected at the same time or place as the type series (i.e. with the date listed above an indication of its receipt by the museum, rather than the date of collection) or whether it was truly secured later than Thomas’ original series.

***Uromys siebersi*** Thomas, 1923

MSNG 3245. Papua New Guinea, Kai Islands, without collecting date, O. Beccari; 1 ♂, skin and skull.

**R e m a r k s .** The *Uromys* of the Kai Archipelago is *U. siebersi*, a distinctive species endemic to these islands (MUSSER & CARLETON 2005), formerly included within the synonymy of *U. caudimaculatus* (see above). The species was last collected in 1922 (THOMAS 1923) and very few specimens of *U. siebersi* are preserved in world museums. Apart from the specimen at Genova, there are only three others—the holotype at BMNH (THOMAS 1923), a paratype in the

Museum Zoologicum Bogoriense in Cibinong, Indonesia (formerly the Buitenzorg Museum), and a skull in Berlin (ZMB 5682).

#### ACKNOWLEDGEMENTS

We wish to thank Roberto Poggi, Director of the Museo Civico di Storia Naturale "G. Doria" of Genova for his kind support.

The first author's visit to Genova was supported by funding from the U.S. National Science Foundation and the Smithsonian Institution, and he thanks Don Wilson for ongoing assistance, Allen Allison for advice and support at the Bernice P. Bishop Museum in Honolulu, Tim Flannery and Guy Musser for helpful discussion.

The second author's visit to Genova was partly supported by funding from the Postgraduate Research Support Scheme of the University of Sydney, and she thanks Chris Dickman for ongoing assistance. The second author would also like to thank Robert Sheaffe for allowing her to take numerous extended leaves of absence from her substantive position with Parks and Wildlife Division to pursue her passion for New Guinea rodents.

Thanks to Maria Bruna Invernici (Museo Civico di Storia Naturale "G. Doria" of Genova), Alessia Lantieri and Cristina Camattari for technical support, and to Marino Superina and Luciano Berlingieri (Centro Video, Comune di Genova) for the digital photos.

#### REFERENCES

- APLIN K.P., PASVEER J.M. & BOLES W.E., 1999 - Late Quaternary vertebrates from the Bird's Head Peninsula, Irian Jaya, Indonesia, including descriptions of two previously unknown marsupial species - *Records west. Austr. Mus.*, Perth, Suppl. 57: 351-387.
- BECCARI O., 1924 - Nuova Guinea, Selebes e Molucche. Diarii di viaggio ordinati dal figlio Prof. Dott. Nello Beccari, con introduzione e note del Prof. Luigi Buscalioni - Soc. An. Editrice "La Voce", Firenze, xxxviii+468 pp.
- BONACCORSO F. J., 1998 - Bats of Papua New Guinea - Conservation International Tropical Field Guide Series, Conservation International, Washington, D. C., 489 pp.
- CAPOCACCIA L. & POGGI R., 1982 - Short history of the Museo Civico di Storia Naturale "Giacomo Doria" in Genoa, Italy - *Archives Nat. Hist.*, London, 11 (1): 107-122.
- D'ALBERTIS L. M., 1879 - Journeys up the Fly River and in other parts of New Guinea - *Proc. R. Geogr. Soc. monthly Rec. Geogr.*, London, New Monthly Series, 1(1): 4-16.

- D'ALBERTIS L. M., 1880 - New Guinea: What I did and what I saw - S. Low, Marston, Searle, & Rivington, London, 2 vols., 424+406 pp.
- DENNIS E. & MENZIES J. I., 1979 - A chromosomal and morphometric study of Papuan tree rats *Pogonomys* and *Chiruromys* (Rodentia, Muridae) - *Ź. Zool.*, London, 189: 315-332.
- FLANNERY T. F., 1995a - Mammals of New Guinea. Revised and updated edition - Comstock/Cornell, Ithaca, New York, 567 pp.
- FLANNERY T. F., 1995b - Mammals of the South-West Pacific and Moluccan Islands - Comstock/Cornell, Ithaca, New York, 464 pp.
- GESTRO R., 1928 - Le origini e lo sviluppo del Museo Civico di Storia Naturale "Giacomino Doria" - *Boll. Soc. Amici Mus. civ. St. nat. "G. Doria"*, Genova, 1: 1 - 53.
- GIBBNEY H. J., 1972 - D'Albertis, Luigi Maria (1841-1901) (p. 2) - In Pike D. (ed.), Australian Dictionary of Biography: 1851-1890, D-J, Vol. 4, Melbourne University Press, Carlton, 494 pp.
- GROVES C. P. & FLANNERY T. F., 1994 - A revision of the genus *Uromys* Peters, 1867 (Muridae: Mammalia) with descriptions of two new species - *Rec. Austr. Mus.*, Sydney, 46: 145-169.
- HELGEN K. M., 2005 - The amphibious murines of New Guinea (Rodentia, Muridae): the generic status of *Baiyankamys* and description of a new species of *Hydromys* - *Zootaxa*, Auckland City, 913: 1-20.
- HELGEN K. M., 2007 - A taxonomic and geographic overview of the mammals of Papua (pp. 689-749) - In Marshall A. J. & Beehler B. M. (eds.), The Ecology of Papua, Ecology of Indonesia Series, Vol. VI, Part One, Periplus Editions, Singapore, 749 pp.
- INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE, 1999 - International Code of Zoological Nomenclature. Fourth Edition - The International Trust for Zoological Nomenclature, London, xxix+306 pp.
- LAURIE E. M. O. & HILL J. E., 1954 - List of land mammals of New Guinea, Celebes and adjacent islands 1758-1952 - British Museum (Natural History) Publications, London, 175 pp.
- LOVERIDGE A., 1948 - New Guinean reptiles and amphibians in the Museum of Comparative Zoology and the United States National Museum - *Bull. Mus. comp. Zool.*, Cambridge, 101 (2): 305-430.
- MCDOWELL S. B., 1975 - A catalogue of the snakes of New Guinea and the Solomons, with special reference to those in the Bernice P. Bishop Museum. Part II. Anilioidea and Pythoninae - *Ź. Herpetol.*, New Haven, 9: 1-79.
- MENZIES J. I., 1989 - Designation of a lectotype for *Melomys levipes* (Thomas, 1897) (Rodentia: Muridae) of New Guinea - *Sci. New Guinea*, Papua, 15: 108-110.
- MENZIES J. I., 1990 - A systematic revision of *Pogonomelomys* (Rodentia: Muridae) of New Guinea - *Sci. New Guinea*, Papua, 16: 118-137.
- MENZIES J. I., 1996 - A systematic revision of *Melomys* (Rodentia: Muridae) of New Guinea - *Aust. Ź. Zool.*, Collingwood, 44: 367-426.
- MUSSER G. G. & CARLETON M. D., 1993 - Family Muridae (pp. 501-755) - In: Wilson D. E. & Reeder D. R. (Eds.), Mammal Species of the World: A Taxonomic and Geographic Reference, second edition, Smithsonian Institution Press, Washington, D.C., xviii+1207 pp.
- MUSSER G. G. & CARLETON M. D., 2005 - Family Muridae (pp. 894-1531) - In: Wilson D. E. & Reeder D. R. (Eds.), Mammal Species of the World: A Tax-



- onomic and Geographic Reference, third edition, Johns Hopkins University Press, Baltimore, 2000 pp.
- MUSSER G. G., HELGEN K. M. & LUNDE D. P., in press - New Guinea rodents (Muridae, Murinae): systematic review of *Leptomys* with descriptions of two new species - *Amer. Mus. Novit.*, New York.
- PETERS W., 1874 - Diagnosi di tre nuovi Mammiferi della Nuova Guinea ed Isole Kei - *Annali Mus. civ. St. nat. Genova*, 6: 303.
- PETERS W. & DORIA G., 1876 - Diagnosi di 3 nuove specie di Mammiferi della Nuova Guinea e di Salawatti - *Annali Mus. civ. St. nat. Genova*, 8: 335-336.
- PETERS W. & DORIA G., 1881 - Enumerazione dei Mammiferi raccolti da O. Bec-cari, L.M. D'Albertis ed A.A. Bruijn nella Nuova Guinea propriamente detta - *Annali Mus. civ. St. nat. Genova*, 16: 664-710.
- PUTHZ W., 1971 - Revision of the *Stenus* species of New Guinea. Part I. (Coleoptera: Staphylinidae) - *Pacific Insects*, Honolulu, 13 (3-4): 447-469.
- PUTHZ V., 1982 - Neue und alte *Stenus*-Arten aus Neuguinea (Coleoptera, Staphylinidae). 186. Beitrag zur Kenntnis der Steninen - *Reichenbachia*, Dresden, 20 (16): 119-143.
- RÜMMLER H., 1938 - Die Systematik und Verbreitung der Muriden Neuguineas - *Mitt. zool. Mus. Berlin*, 23: 1-297.
- TATE G. H. H., 1940 - Notes on the types of certain early described species of monotremes, marsupials, Muridae, and bats from the Indo-Australian region - *Amer. Mus. Novit.*, New York, 1061: 1-10.
- TATE G. H. H., 1951 - Results of the Archbold Expeditions. No. 65. The rodents of Australia and New Guinea - *Bull. amer. Mus. nat. Hist.*, New York, 97: 183-430.
- TAYLOR J. M., CALABY J. H. & VAN DEUSEN H. M., 1982 - A revision of the genus *Rattus* (Rodentia, Muridae) in the New Guinean region - *Bull. amer. Mus. nat. Hist.*, New York, 173: 177-336.
- TAYLOR J. M. & HORNER B. E., 1973 - Results of the Archbold Expeditions. No. 98. Systematics of native Australian *Rattus* (Rodentia, Muridae) - *Bull. amer. Mus. nat. Hist.*, New York, 150: 1-130.
- THOMAS OLDFIELD M. R., 1888 - Diagnoses of six new mammals from the Solomon Islands - *Ann. Mag. nat. Hist.*, London, (ser. 6) 2: 155-158.
- THOMAS OLDFIELD M. R., 1897 - Viaggio di Lamberto Loria nella Papuasias Orientale. XIX. On the mammals collected in British New Guinea by Dr. Lamberto Loria - *Annali Mus. civ. St. nat. Genova*, 38: 606-622.
- THOMAS OLDFIELD M. R., 1908 - A new *Pogonomys* presented to the British Museum by Sir William Ingram - *Ann. Mag. nat. Hist.*, London, (ser. 8) 2: 495-496.
- THOMAS OLDFIELD M. R., 1920 - New small mammals from New Guinea - *Ann. Mag. nat. Hist.*, London, (ser. 9) 6: 533-537.
- THOMAS OLDFIELD M. R., 1923 - A new *Uromys* from the Kei Islands - *Treubia*, Batavia, 3: 422.
- TROUESSART E. L., 1897 - Catalogus mammalium tam viventium quam fossilium. Nova edition (prima completa). Fasciculus III, Rodentia II (Myomorpha, Hystricomorpha, Lagomorpha) - R. Friedländer and Sohn, Berlin, pp. 453-654.
- VAN STEENIS KRUSEMAN J., 1950 - Malaysian plant collectors and collections being a cyclopaedia of botanical exploration in Malaysia and a guide to the concerned

literature up to the year 1950, with some introductory chapters by C. G. G. J. van Steenis - *Flora Malesiana*, Leiden, vol. 1: 1-638.

WALLACE A. R., 1880 - D'Albortis' "New Guinea" - *Nature*, London, 23: 581-582.

WINTER J. W. & WHITFORD D., 1995 - Prehensile-tailed rat, *Pogonomys mollipilosus* (pp. 643-645) - In: Strahan R. (Ed.), *Mammals of Australia*, Smithsonian Institution Press, Washington, D. C., 756 pp.

WOODFORD C. M., 1890 - A naturalist among the head-hunters, being an account of three visits to the Solomon Islands in the years 1886, 1887, and 1888 - E.A. Petherick and Company, Melbourne, 249 pp.

## ABSTRACT

Catalogue of Melanesian Rodents (Mammalia: Rodentia) in the Museum of Genova.

The Museum of Genova holds an historically important collection of 206 rodent specimens from Melanesia (the large tropical island of New Guinea and adjacent smaller islands), collected during the late nineteenth century. The collection houses a number of Melanesian rodent type specimens, including six holotypes, one lectotype, one syntype, paralectotypes for five taxa, and four paratypes. Also to be found in the collection are exemplars of several species very rare in collections, such as the large endemic insular murines *Uromys rex* (of Guadalcanal in the Solomon Archipelago) and *Uromys siebersi* (of the Kai Archipelago of Indonesia).

The Authors present revised identifications of all Melanesian rodents represented in the collection, discuss the localities where these specimens were obtained, and provide photographic illustrations of selected type material.

## RIASSUNTO

Catalogo dei Roditori (Mammalia: Rodentia) della Melanesia nel Museo di Genova.

Nel Museo di Genova è conservata un'importante collezione di 206 Roditori della Melanesia (comprendente la grande isola tropicale della Nuova Guinea e le più piccole isole adiacenti) raccolti nel XIX secolo. Nella collezione sono presenti anche esemplari tipici: sei olotipi, un lectotipo, un sintipo, paralectotipi di cinque specie e quattro paratipi. Vi sono anche rappresentanti di specie molto rare nelle collezioni museali come i grossi murini, endemiti insulari, *Uromys rex* (di Guadalcanal nell'Arcipelago delle Solomon) e *Uromys siebersi* (dell'Arcipelago delle Kai dell'Indonesia).

Vengono riportate le determinazioni aggiornate di tutti gli esemplari, sono esaminate le località di raccolta e vengono fornite le fotografie di alcuni esemplari tipici.