

Order HYRACOIDEA

Family PROCAVIIDAE

The Typical Rock Dassies

Procavia

Procavia Storr, 1780, Prodr. Meth. Mamm., tab. B, p. 40; genotype *P. capensis* Pallas, 1766, Miscell. Zool., p. 30. The South African Rock Dassie from the Cape.

Rock Dassie, Rock Rabbit—Klipdassie

Procavia capensis Pallas

PROCAVIA CAPENSIS CAPENSIS.

Cavia capensis Pallas, 1766, Misc. Zool., p. 30.

Type (not in existence) from near Cape Town.

PROCAVIA CAPENSIS WINDHUKI.

Procavia capensis windhuki Brauer, 1914, Sitz.-ber. Ges. nat. Freunde, Berlin, Jahr., No. 1, pp. 29-31.

Type (in the Berlin Museum) from 'the vicinity of Windhoek,'¹ S.W. Africa.

PROCAVIA CAPENSIS REUNINGI.

Procavia capensis reuningi Brauer, 1914, Sitz.-ber. Ges. nat. Freunde, Berlin, Jahr., No. 1, pp. 30-32.

Type (in the Berlin Museum) from Fürstenwalde, south of Windhoek.²

PROCAVIA CAPENSIS SCHULTZEI.

Procavia capensis schultzei Brauer, 1914, Sitz.-ber. Ges. nat. Freunde, Berlin, Jahr., No. 1, pp. 30, 32-33.

Type (in the Berlin Museum) from Chamis, Great Namaqualand.

PROCAVIA CAPENSIS WATERBERGENSIS.

Procavia capensis waterbergensis Brauer, 1914, Sitz.-ber. Ges. nat. Freunde, Berlin, Jahr., No. 1, pp. 30, 33.

Type (in the Berlin Museum) from the Waterberg, S.W. Africa.

¹ Range: Windhoek (Dobra, Otjimbique, K pferberg, and Hinterland).

² Range: Govt. Farm F rstenwalde, Lichtenstein, Farm Niedersachsen—near Windhoek, near Rehoboth, Owass (40 km. north of Berseba), and near Churutabis.

NATIVE NAMES: (*Procavia* and *Heterohyrax*).

PERSONALLY COLLECTED

Herero: *Oh ri*.

Bechuana: *P la*.

Nama Hottentot, Berg Damara, Hei||kum Bushman: *!A b*.

!Kung Bushman: *!A ng*.

OTHER SOURCES

Bechuana: *Tela* (England).

Sikololo, Chila, Kaonde: *Chibila* (Lancaster).¹

Chinkoya, Chilavale: *Shibila* (Lancaster).¹

DISTRIBUTION IN SOUTH-WEST AFRICA.—Rock Dassies belonging to the genus *Procavia* are abundantly distributed over the mountainous and rocky parts of Great Namaqualand and Damaraland from the Orange River and the Karas Ranges in the south, to about the latitude of the Waterberg in the north—beyond which (in Outjo District and the Kaokoveld in the west, and the Grootfontein Hills in the east) they are replaced by *Heterohyrax*.

It was not ascertained if *Procavia* overlaps with *Heterohyrax* at the northern limit of its range (between latitudes 20 and 22 deg. S). *Procavia* inhabits the coastal ranges, though it does not seem to extend quite to the coast. In Gobabis District it does not occur farther east than the hills between Omitara and Witvlei, except doubtfully at Baviaan's Kloof at the junction of the Black and White Nossob Rivers (longitude 19 deg. approx.).

It has been recorded from Little Namaqualand (Grant).

GENERAL DISTRIBUTION OUTSIDE SOUTH-WEST AFRICA.—*Procavia capensis* has a wide distribution over Southern Africa from the Cape Peninsula in the south, occurring on hills and krantzies throughout the Cape Province, Griqualand West (McGregor Museum), Bechuanaland (Kuruman—Woosnam), the Orange Free State, Natal, Zululand, and the Transvaal.

In Southern Rhodesia and Northern Bechuanaland *Procavia* may be replaced largely by *Heterohyrax*.

"Rock Dassies are found in the hills along the Shashi and Meitengwe Rivers in Northern Bechuanaland."—Neale.

Beyond the Zambesi the genus (*Procavia*) has been recorded from Northern Rhodesia (the Kafue Region—Lancaster), Tanganyika Territory (Neumann), Kenya Colony, Abyssinia, the Sudan, Nubia, and Upper Egypt (east of the Nile—Flower).

A specimen of *Procavia* (sp. inc.) has been sent to the Kaffrarian Museum by Lancaster from Namwala (Kafue).

"Not uncommon in suitable localities in the Namwala and Mumbwa Districts."—Pitman.

Outside Africa *Procavia syriacus* extends through Sinai, Palestine, Syria, and Arabia (Flower).

¹ Also used for *Dendrohyrax*.

HISTORICAL.—“The earliest allusion to the Dassie is doubtless that contained in the Bible (Psalm civ., v. 18), where the rocks are described as ‘the refuge for the ‘Conies’—the allusion obviously being to the Syrian Species. In South Africa it is first mentioned by Kolbe in 1719 under the name of ‘daxe’ in the original German edition (p. 144).”—W. Sclater.

HABITS.—Rock Dassies frequent krantzies, rocky mountain slopes, kopjes, or outcrop ridges. In wooded country (as around Port St. Johns and in the Perie Forest) they may at times be met with at the edge of forest, sometimes among the trees. For the most part, however, they inhabit arid or scrub-covered ranges, and are ubiquitous wherever there is suitable rock shelter. Rock Dassies are gregarious, living in colonies of about half a dozen up to fifty or more. They are mainly diurnal, running about and feeding in the early morning, late afternoon, and evening, and lying up under rocks or between crevices during the hot hours of the day. Like *Petromys* and *Elephantulus*, they may also come out and feed during warm moonlight nights, never, I believe, on dark nights.

“Rock Dassies may sometimes be heard at night; in East Africa Loring heard their cries by night, usually when the moon was out.”—Roosevelt.

Rock Dassies are fond of sunning themselves, and may often be seen lying flat on the tops of rocks and ledges. They are sharp-sighted and keen of hearing. Under persecution they become very shy, disappearing like a flash into holes or crevices at the slightest unusual sound or movement: in such circumstances, one or more of a community apparently post themselves as sentinels.

In spite of their heavy build, dassies are extremely active, and scale precipitous cliffs with the agility of baboons. They are exceedingly wary and alert at all times, and amidst rocky surroundings are seldom if ever caught by dogs. If shot, unless killed instantaneously, dassies nearly always succeed in slipping into some near-by crevice out of reach.

“Rock Dassies are usually found in krantzies or rocky hill-sides, and habitually range back and forth from one end of a range of hills to another. They frequently go down to the flats to feed at night. They shelter under rocks and do a considerable amount of digging.”—Powell.

Dassies are exclusively vegetarian in diet, but, as they rarely venture far from rocks and hills, are not credited with doing much damage to crops or other cultivation.

“Food: grass, leaves, bark of trees, etc.”—Powell.

“In confinement they will eat almost anything: cooked rice, lentils and other vegetables, sugar, coffee, bread, etc.”—Burton.

Adult individuals are difficult to trap, but half-grown and newly-born animals come fairly readily to traps baited with mealies. A wounded rock dassie is apt to bite savagely, and, if it gets a grip, will hang on like a badger. In captivity it is uncertain in temper and never becomes as intelligently friendly as a tree dassie.

“It is soon tamed, but always ready to bite.”—Burton.

“Rock Dassies (*P. mackinderi*) were found on Mount Kenya at altitudes between 12,000 and 15,000 ft., and were common wherever protective rocks occurred. At all times of the day, but more frequently after the sun had risen, they could be seen singly, in pairs, and in families, perched on the peaks. They emit a variety of chatters, whistles, and cat-like squalls that cannot be described in print, and we found them very noisy. Whenever they saw anyone coming they always sounded some note of alarm, and frequently continued to harangue the intruder until he had approached so close that they took fright and disappeared in the rocks. Along the bases of the cliffs, and leading from one mass of rocks to another, they had made well-worn trails through the grass. Under the shelving rocks were great heaps of their droppings.”—Loring.

The usual calls are a series of scolding squeals—often uttered when the animals are above ground or just emerging from their lairs—without the peculiar succession of rattling sounds which precede the cries of tree dassies.

They deposit their droppings in selected patches, where they frequently form very large accumulations: in sheltered spots these may not desiccate for years, but eventually congeal into curious sticky masses, which are then credited to possess medicinal properties. (‘Dassipis’ enters the Pharmacopœia).

“The droppings are found in huge mounds among rocks, and keep their shape for years.”—Powell.

Dassies are preyed upon by eagles, leopards, caracals, and other cats, and perhaps muishonds. As they defend themselves when cornered, it is doubtful if genets or mongooses are powerful enough to tackle adult individuals.

The flesh is sometimes eaten, but is not very palatable: the intestines are often much infested by tapeworms.

“A Cape Rock Dassie lived in the London Zoo for about 6½ years. Although Syrian Dassies breed freely in the Giza Zoo, they never live long. The average of ten individuals that lived longest was only about 4 years 11 months. One male lived for about 7 years 5 months, and a female for 6 years 4½ months.”—Flower.

BREEDING HABITS.—The number of young in a litter averages from two to three. According to Moseley three is the usual number. They are born at the bottom of crevices or between piled-up loose boulders, are fully covered with hair, and run about actively soon after birth. Newly-born individuals are hardly larger than Dassie Rats (*Petromys*), for which, in South-West Africa, they were sometimes shot in mistake. There seems to be no particular breeding season.

“Number in a litter 3 to 4; they breed once a year.”—Powell.

“In the Giza Zoological Gardens four generations of Hyraces were born in captivity from a wild-caught pair received from Sinai in 1910. Sinaitic Hyraces are born with their eyes open and very lively: soon after birth they run about, displaying great activity, and make a loud chirping noise like the voices of little birds. The first young are born when the parents are two years old; this was noted in the second, third, and fourth generation. Females have young annually, usually in the second half of March. Out of twenty-nine of these

Hyraces born in the Giza Zoological Gardens, 27 (in ten litters) were born between the 12th and 27th of March, 1913—1921, one 3rd April 1918, and one 4th April 1920. J. L. Bonhote noted that one female contained 4 fœti, and another 3. In fourteen litters, the average number of young was 2.57, the maximum was 5 (once).

A female of *P. burtoni* caught by Burnett Stuart in Upper Egypt in January, 1909, contained one embryo."—Flower.

DESCRIPTIVE NOTES.—"Individuals of *P. syriacus* differ at the same time of the year in having lighter or darker coats of hair."—Flower.

The dorsal spot (in all dassies) consists of a small elongated bare patch, apparently of a glandular nature, surrounded by a fringe of lighter or darker erectile hairs.

The soles of the feet are thick and flat. They are clammy during life, like those of monkeys—but without any perceptible suctional power, by which (supposed) power they have very often been described as able to cling to smooth surfaces. On the occasions, in my experience, when dead rock dassies have remained adhering to the side of a perpendicular cliff, some of the toes have been found to be rigidly hooked into some slight crevice or ledge, in much the same way as monkeys very often remain clinging to a branch after death.

Mammæ, 6.

Weight.—3 females, 7.18, 8.8, and 9.36 lb. (*P. syriacus*—Flower); 2 females, 5½ and 4.4 lb. (*P. burtoni*—Burnett Stuart and Bonhote).

The Heterohyraces

Heterohyrax

Heterohyrax Gray, 1868, Ann. Mag. N.H., ser. 4, vol. I, p. 50; genotype *H. brucei* Gray, 1868, Ann. Mag. N.H. (4), I, p. 44. Bruce's Dassie from Abyssinia.

Kaokoveld Rock Dassie—Geelkoldassie

Heterohyrax welwitschii Gray

HETEROHYRAX WELWITSCHII WELWITSCHII.

Hyrax welwitschii Gray, 1868, Ann. Mag. N.H. (4), I, p. 43.

Type (in the Lisbon Museum) from Capangombie, S.W. Angola.

HETEROHYRAX WELWITSCHII VOLKMANNI.

Procavia volkmanni Brauer, 1914, Sitz.-ber. Ges. nat. Freunde, Berlin, Jahr., No. I., pp. 35-36.

Type (in the Berlin Museum) from Franzfontein, Outjo Dist., S.W. Africa.

HETEROHYRAX WELWITSCHII FLAVIMACULATA.¹

Procavia flavimaculata Brauer, 1917, Sitz.-ber. Ges. nat. Freunde, Berlin, p. 303.

Type (in the Berlin Museum) from the Kaokoveld.

¹ = *Procavia welwitschii* (cf. A. Brauer, 1914, Sitz.-ber. Ges. nat. Freunde, Berlin, p. 33).

NATIVE NAMES:

Not distinguished from *Procavia*.

DISTRIBUTION IN SOUTH-WEST AFRICA.—*H. welwitschii* is exceedingly plentiful in the mountainous north-western parts of South-West Africa (the hills of Outjo Dist., and the Kaokoveld, north-eastward to the Rua Cana Falls, N.W. Ovamboland) to at least as far south as Franzfontein (the type locality of *H. w. volkmanni*) and the mountains west of Otjiwarongo (Bradfield).

In the east it occurs on the hills around Tsumeb and Grootfontein, and may extend as far south-east as Otavi Mountain.

"They are everywhere plentiful among the mountains of the Kaokoveld."—Steinhardt.

H. welwitschii also ranges over the south-west corner of Angola (along the coast of Mossamedes and Benguella)—that rocky region being topographically a northern extension of the Kaokoveld.

"It inhabits the interior of Benguella near Copangombe and Chelle."—Bocage.

"Found 50 km. east of Benguella."—Glein.

The Rock Dassies said to occur in the Tshodilo Hills (1,000 ft. approx. above the plains), N.W. Ngamiland, about 40 miles west of Namasseri, Okavango, are likely to be referable to *Heterohyrax*.

GENERAL DISTRIBUTION OUTSIDE SOUTH-WEST AFRICA.—*Heterohyrax* has been recorded in Southern Africa from the Northern Transvaal, Portuguese East Africa (Gorongosa Mts.—Grant), Southern Rhodesia, and Northern Bechuanaland (Ngamiland, etc.).

Dassie skins in karrosses from Northern Bechuanaland are largely referable to a species of *Heterohyrax*.

In Central Africa the genus ranges from Northern Rhodesia (Lancaster and Pitman), Nyasaland, and Mozambique (Sclater), to Tanganyika Territory (?), Kenya Colony, Uganda, and Abyssinia.

"*H. brucei* is widely distributed in many suitable localities in Northern Rhodesia, particularly along the Muchinga Escarpment."—Pitman.

"*Heterohyrax* is much more generally distributed over East Africa than is either of the other genera, *Procavia* or *Dendrohyrax*."—Hollister.

HABITS.—In South-West Africa, Rock Dassies (referred to the genus (*Heterohyrax*) are gregarious and diurnal. Although somewhat less wary, they are otherwise identical in habits with *Procavia*.

When startled they utter a series of scolding screams, hardly distinguishable from those of *Procavia capensis*.

Loring describes the East African *H. brucei hindei* as a 'nocturnal' rock dassie.

"In Portuguese East Africa *H. brucei* inhabits the krantzies and masses of loose boulders on mountain sides. It is diurnal, and feeds in the morning and late afternoon."—Grant.

BREEDING HABITS.—Large numbers of newly-born young and females of *H. welwitschii* containing foetuses were shot in Outjo District and the Kaokoveld in March, the average litter being from two to three, on one occasion four. Newly-born individuals were shot near the Rua Cana Falls (N.W. Ovamboland) in September.

Length (h and b.) of a late foetus, 204 mm.

In Kenya Colony Heller found three embryos in a female of *H. pumula rudolfi* in July, and two in each of three females of *H. brucei albipes* in May. Loring and Mearns each collected a female of *H. brucei hindei* containing two embryos.

The breeding habits of *Heterohyrax* appear to be identical with those of *Procavia*, and the young at birth similar in size and appearance.

DESCRIPTIVE NOTES.—Except for the buffy-white dorsal spot and paler general coloration, *H. welwitschii* is very similar externally to *P. capensis*.

Mammæ, 6.

The Tree Dassies

Dendrohyrax

Dendrohyrax Gray, 1868, Ann. Mag. N.H. (4), vol. I, p. 48; genotype *D. arboreus* A. Smith, 1827, Trans. Linn. Soc., XV, p. 468. The South African Tree Dassie from Eastern Cape Colony.

Tree Dassie—Boomdassie

Dendrohyrax arboreus A. Smith

DENDROHYRAX ARBOREUS ARBOREUS.

Hyrax arboreus A. Smith, 1827, Trans. Linn. Soc., XV, p. 468.

Lectotype (?) (in the British Museum) from Eastern Cape Colony.

DENDROHYRAX ARBOREUS BRAUERI.

Dendrohyrax arboreus braueri Hahn, 1933, Zeitschr. Saugeth, vol. 8, pp. 278–279.

Type (in the Congo Museum—Tervueren) from Elizabethville, Katanga.

NATIVE NAMES:

Chilunda: *Chibatata* (Lancaster).

DISTRIBUTION IN SOUTH-WEST AFRICA.—The Eastern and (possibly) the Central Caprivi.

I did not hear of Tree Dassies occurring in the Okavango Region.

DISTRIBUTION OUTSIDE SOUTH-WEST AFRICA.—Tree Dassies occur in the coastal and sub-coastal forests of the Eastern Cape Province, from as far south as Albany, Port Elizabeth (?), and perhaps Knysna—through Kaffraria, the Transkei, and Pondoland—to Natal, Zululand, the Eastern Transvaal (?),

Portuguese East Africa, parts of Southern Rhodesia, and probably the extreme north of Ngamiland.

“They are common in Alexandria District, especially amongst the big euphorbias on the estuaries.”—Hewitt.

In Tropical Africa members of the genus (*Dendrohyrax*) range through Northern Rhodesia—to the South Cameroons (Brauer), the Gold Coast (Ashanti—Brauer), and Senegambia (Spanish Guinea—Brauer) in the west, and to Kenya Colony and Uganda in the east.

“In Northern Rhodesia (Sesheke Dist.) Tree Dassies are apparently fairly plentiful in mopane belts near water.”—Lancaster.

The Kaffrarian Museum possesses specimens from Ndola and Sesheke (Sichili River—Lancaster).

HABITS.—Tree Dassies (*Dendrohyrax*) differ from Rock Dassies (*Procavia* and *Heterohyrax*) in being strictly nocturnal and solitary in habit. Although essentially arboreal, they occasionally descend to the ground in search of food. They hide by day in the hollow trunks or branches of trees, or among dense foliage, and when discovered are very sluggish. They seldom stray away from forests, although, in Pondoland, an individual was once found in a tree in fairly open country. Tree Dassies are less active than Rock Dassies, to which they bear much the same relationship, with regard to habits, as Nocturnal Lemurs do to Monkeys, or Fying Squirrels to Ordinary Squirrels. During the night they are active and wary enough, running up and down tree-trunks and taking occasional leaps from branch to branch like Australian Opossums. If caught alive, even when full-grown, they are inoffensive, becoming tame and allowing themselves to be handled in a very short time—being in this respect very different to the uncertain-tempered and easily irritated rock dassies. The loud and characteristic screaming calls of tree dassies (known in the Eastern Cape Province as ‘bush-babies’) are first preceded by a series of clucking sounds. These cries are made continuously throughout the night, and are of far greater volume than those of rock dassies.

“A rattling sound, rather deliberate at the start but growing in rapidity and intensity and then terminating in a succession of wailing shrieks.”—Hare.

“The weird cry is no sooner uttered than it is answered from another tree.”—Godfrey.

“In East Africa, from the time we reached the edge of the forest belt (alt. 7,000 ft.) on Mount Kenya, we heard Tree Dassies (*D. crawshayi*) every night, and at all camps up to an altitude of 10,000 ft. They were very common. I once heard one on a bright afternoon about four o’clock, and on a second occasion another about two hours before sundown. Although we searched diligently on the ground for runways, and for suitable places to set traps, no such place was found. We were informed that these animals inhabited hollow stumps and logs as well as the foliage of live trees. At evening, about an hour after darkness had fully settled, a dassie would call, and in a few seconds dassies were answering from all around, and the din continued for half an hour or an hour. The note began with a series of deep frog-like croaks that gradually

gave way to a series of shrill tremulous screams. It was a far-reaching sound and always came from the large forest trees."—Loring.

BREEDING HABITS.—The young of *Dendrohyrax* are born in an advanced state, as in *Procavia* and *Heterohyrax*. The number of young in a litter may, however, average less than in those genera; one or two at a birth appearing to be usual, although three were once found at Port St. Johns.

In East Africa (October) Loring obtained a female of *D. crawshayi* containing a single foetus.

There may be no particular breeding season.

DESCRIPTIVE NOTES.—Compared with *Procavia* and *Heterohyrax*, the fur of *Dendrohyrax* is long and silky, and the still longer white hairs surrounding the dorsal patch (gland?) have some resemblance, on a diminutive scale, to the 'fan' of the springbok.

Mammæ, 6.