

Somaliland); 2 ft. 9 in. (Powell-Cotton—French Chad), 2 ft. 6 in. (Powell-Cotton—Uganda), 2 ft. 3 in. (Powell-Cotton—Abyssinia); 80–95 cm. (Wilhelm).

Dimensions: The following are the measurements, before skinning, of the three largest specimens recorded by Rowland Ward (1928):

	Total length.	Tail.	Locality.
(1) ♀	5 ft. 11 in.	1 ft. 1 in.	Uganda (Powell-Cotton).
(2) ♀	5 ft. 6 in.	1 ft. 0½ in.	French Chad (Powell-Cotton).
(3) ♀	5 ft. 2 in.	1 ft. 1 in.	Abyssinia (Powell-Cotton).

Vaughan-Kirby records an 'over all' measurement of 6 ft. 3 in. from S.E. Africa.

Family CANIDAE

The Typical Dogs and Jackals

Canis

Canis Linnæus, 1758, Syst. Nat., 10th ed., 1, pp. 38–41; genotype, *C. familiaris* Linnæus, id., p. 38. The Domestic Dog.

Black-Backed Jackal—Rooijakkals

*Canis (Thos)*¹ *mesomelas* Schreber

CANIS MESOMELAS MESOMELAS.

Canis mesomelas Schreber, 1778, Säugth., iii, p. 370.

Type (not in existence?) from the Cape.

CANIS MESOMELAS ARENARUM.

Thos mesomelas arenarum Thomas, 1926, P.Z.S. (I), p. 295.

Type (in the British Museum) from Berseba, Great Namaqualand.

CANIS MESOMELAS ACHROTES.

Thos mesomelas achrotes Thomas, 1926, P.Z.S. (I), pp. 295–296.

Type (in the British Museum) from Rooibank, Kuiseb River (nr. Walvis Bay), S.W. Africa.

NATIVE NAMES:

PERSONALLY COLLECTED

Herero, Ovambo: *Ombánji*.

Bechuana: *Pukújě*, *Phokóyě*.

Ovadirico: *Gi'iróhwé*.²

¹ *Thos* Oken, 1816, Lehrb. Naturg., Zool. Theil 3, p. 1037; genotype *T. aureus* Koempfer, Amoen., p. 413, Fig. 3; p. 5, No. 5 (cf. Linnæus, 1766, Syst. Nat., i, p. 59): The Persian Jackal from the Benna Mts., Laristan, S. Persia.

² Possibly of Bushman extraction.

Nama Hottentot, Berg Damara, Hei||kum Bushman: /*Girib*.
 ||K'au||en Bushman: †*Goa†na*.
 !Kung Bushman: †*Goe*.
 Naron Bushman: /*Gi:ri:mi*.

OTHER SOURCES

Herero: *Ombandje* (Zukowsky).
 Bechuana: *Pukuye* (Livingstone).
 Nama Hottentot: /*Geirab* (Krönlein).
 Berg Damara: /*Girib*, /*Geirib* (Krönlein).
 ||K'au||en Bushman: !*Gwa|na* (Bleek).
 !Kung Bushman: /*Kara* (Bleek); *Gari-k-gari* (Zukowsky).
 Naron Bushman: /*Geriba* (Bleek).
 /Nu||en Bushman: /*Go:xu* (Bleek).
 Masarwa (Kakia) Bushman: !*Gaushi* (Bleek).
 /Auni Bushman: ⊙*Po sa* (Bleek).
 ||Ng|ke Bushman: *Koro* (Bleek).
 /Kam-ka!ke Bushman: *Koro* (Bleek).

DISTRIBUTION IN SOUTH-WEST AFRICA.—The Black-Backed Jackal is exceedingly abundant throughout South-West Africa except in the extreme north-east and the Caprivi. In the northern parts of Grootfontein District it gradually becomes scarce, and finally very rare in the Okavango Region and the Caprivi,¹ where it is almost entirely replaced by *Canis adustus*.

It is plentiful in Little Namaqualand in the south, and in the north extends into Southern Angola.

GENERAL DISTRIBUTION OUTSIDE SOUTH-WEST AFRICA.—*Canis mesomelas*, the Common Jackal of Southern Africa, is widely and extensively distributed practically everywhere from the Cape Flats to the neighbourhood of the Zambesi, gradually becoming replaced by the Grey Rhodesian Jackal (*Canis adustus*) from about latitude 20 deg. S. In Zambesia generally, and in Northern Rhodesia, Nyasaland, and Mozambique, *Canis mesomelas* appears almost to vanish; reappearing again as a well-known species in Tanganyika Territory (Abbott), Kenya Colony, Uganda (Betton), Somaliland, Abyssinia, and the Sudan—to as far north as Middle Nubia.

"*Canis mesomelas* is believed to occur in Northern Rhodesia."—Pitman.

Vaughan-Kirby records it from 'Mozambique.'

"The Black-Backed Jackal is common in British East Africa and widely distributed—more so than the Grey Species (*C. adustus*), being found all over the plains and desert country and extending right away up to the Abyssinian Frontier."—Percival.

The genus ranges over the whole of Africa, South-Eastern Europe, and Southern Asia—to as far east as Burma.

¹ Wilhelm doubts if *C. mesomelas* occurs at all in the Hukweveld (Central Caprivi) or the Okavango Flood Area, from which regions northwards across the Zambesi it is replaced by *Canis adustus* in the same way as *Hyæna brunnea* is by *Crocuta*.

HABITS.—The Common South African Jackal (*Canis mesomelas*) is referred to rather confusedly in various parts of the country as the Black-Backed, Grey, Silver, or Saddle-Backed, Red, or Golden Jackal; the Silver Fox (*Vulpes chama*) is known as the Silver, Vaal, or Draai Jackal; the Black-Eared Fox (*Otocyon*) as the Bakoor or Draai Jackal; and the Aard Wolf (*Proteles*) as the Maanhaar Jackal. Consequently from casual description there is often some difficulty in making sure of the identity of any one of these animals—all of which are looked upon as jackals; whilst in many of the country districts it is almost impossible to shake the belief that there are several sheep-destroying varieties. (The names given to the Side-Striped Jackal, *Canis adustus*, are the Grys or Witwas Jackal, but, being a northern species, it is unknown in the Union of South Africa—south of the Transvaal.) The Black-Backed Jackal usually goes about singly or in pairs, although small parties of from three to five may occasionally be seen together.

“In the dry season (S.W. Africa) sometimes ten or more will assemble together and hunt through a district.”—Wilhelm.

Although primarily nocturnal, hunting couples often wander about in the daytime in undisturbed areas. In the Namutoni Game Reserve jackal were sometimes observed crossing the wide open grass flats that surround the Etosha Pan in twos or threes at various hours of the day. They like to lie up by day in thick bush cover, but in arid regions where there are suitable hills they hide in rock crevices or under piled-up boulders. When hunted with dogs the Black-Backed Jackal seeks refuge in ant-bear or porcupine burrows.

“It prefers open or lightly-forested country, and by day lies up in thickets or long grass. In habit it is rather solitary, though, like all scavenging animals, individuals are prone to collect where carrion lies. Where not disturbed it is partly diurnal. Mating pairs are often seen together as well as females with one or more young ones.”—Stevenson-Hamilton.

“In the more thickly inhabited parts of the country the Black-Backed Jackal is strictly nocturnal in habit. It cannot perhaps be called a social animal, though occasionally in the evening a few may be seen together.”—W. Sclater.

“Jackal come regularly to water at dusk or when the moon is up. In uninhabited districts they will drink during the daytime. Leopards are said to destroy a considerable number of jackal.”—Wilhelm.

In the farming districts of South Africa Black-Backed Jackal have become as wary as European Foxes, and efforts continue to have been made to destroy them by every possible means, ever since they developed sheep-killing habits owing to the increasing scarcity of their natural food. The systematic trapping of jackal in the Union has rendered them extremely cunning there; but in most parts of South-West Africa we found both *Canis mesomelas* and *adustus* among the easiest of carnivorous animals to trap, provided that the traps were carefully concealed.

“If traps are left in one place, after about a week they become as suspicious and wary as foxes.”—Wilhelm.

Food: carrion of every description, small mammals—hares, ground

squirrels, mierkats, gerbils and other small rodents, the nestlings and eggs of ground birds (including those of ostriches), lizards, tortoises, locusts and other insects; the young and half-grown of the small and medium-sized antelope, and also on occasion wild fruits and other vegetable matter. An individual in captivity occasionally ate grass like a dog.

"At the start of the rains when the white ants begin flying, jackal will prey on them; and, in the absence of other food, will eat fruit. In Grootfontein District (S.W. Africa) jackal droppings were often noticed to contain the kernels of 'omanjem' berries. Like hyæna they will run off with 'reims' and harness straps if these be left lying round a camp."—Wilhelm.

If opportunity offers, they raid poultry yards, while the destruction of sheep and goats in South Africa by jackal, particularly during the lambing season, is well known. According to Cloete, they chiefly kill lambs and kids and seldom attack full-grown sheep; but there appears to be ample evidence of destruction of adult small stock in the Union of South Africa. In spite of their abundance in South-West Africa, it is generally agreed that the damage done to small stock is very small indeed: some farmers even affirm that they do practically no harm whatsoever, as there is still plenty of small ground game, and enough carrion left by leopards and other predaceous animals to enable them to retain their ordinary habits. That small-stock in South-West Africa is largely kraaled by night may be a further check. In South-West Africa, Bradfield (Ann. Transvaal Mus., 1928) believes jackal to be beneficial, rather than harmful, as a check on parobotulism, by keeping the veld clear of dead animals and defæcations (of the *Felidæ*).

The Namib Jackal (*C. m. achrotes*) is said to join up with parties of Brown Hyæna, wandering up and down the seashore in search of dead fish and other marine refuse.

The cry of *C. mesomelas* is a series of yapping barks, followed or preceded by one more prolonged—almost a howl. The sounds are quite unlike the comparatively subdued and more dog-like barks of *C. adustus*. Jackals are noisy animals, their far-carrying yelps being among the most characteristic and frequently-heard sounds of the South African veld at night. However, even where plentiful, they may sometimes become more or less silent for many nights.

"The call of the Black-Backed Jackal is a shrill 'Yaaaa-ya-ya-ya-ya,' repeated quickly several times."—S. Hamilton.

"A long-drawn, high, wailing howl, varied by curious yelps."—Bryden.

"The call resembles 'Hoa-hoa-hoa,' ending with 'Hu-a-u.' When angry a jackal will 'kecker' like a fox; if a leopard is about it will give a warning 'hauch.'"—Wilhelm.

"When brought to bay the Jackal utters a cackling note."—Cloete.

A young individual in captivity (King William's Town) would whine like a puppy to attract attention.

"Black-Backed Jackals have lived in the London Zoo for between 13 and 14 years. Nineteen individuals give an average of over 8 years."—Flower.

BREEDING HABITS.—The Kaffrarian Museum has on various dates received jackal litters ranging from two to six in number.

From three to four appears to be most usual. A female received on July 27th contained 7 foetuses; FitzSimons mentions as many as 9.

The young are born and reared in burrows, caves, or crevices.

“The female brings forth her young in a burrow or cave at the start of the rains—about November or December.”—Wilhelm (S.W. Africa).

“The parents are very rarely found in the holes with the young ones, generally lying up in the nearest patch of bush. Breeding burrows usually have an escape hole.”—Cloete.

“The young of jackals and porcupines have on more than one occasion been found in the same burrow together.”—Hobson.

“The young are born in an earth, either excavated by the animal itself or more often by an ant-bear. When feeding the young they either carry the food in their mouths or regurgitate. The male helps the female in foraging.”—W. Sclater.

DESCRIPTIVE NOTES.—There are two albinistic skins of this jackal, one in the Kaffrarian Museum (from Vryburg) and the other in the Albany Museum (from Serowe). These skins have a pale erythristic wash, and the division between the back and sides is indicated by a reddish line.

“*Canis mesomelas achrotes* is an extremely pallid form of the Jackal, the colour of the ears and limbs being quite distinctive.”—Thomas.¹

“The pups are of a drabbish brown colour, darker on the back, paler below.”—Haagner.

The weight of a Black-Backed Jackal is said to average 21 lb.—about that of a large English Fox.

Side-Striped Jackal—Grysjakkals, Witwasjakkals

*Canis (Schæffia)*² *adustus* Sundevall

CANIS ADUSTUS.

Canis adustus Sundevall, 1847, Oefvers, Akad. Förhandl., Stockholm, iii, p. 121.

Type (in the Stockholm Museum ?) from the Magaliesberg, Transvaal.

NATIVE NAMES:

PERSONALLY COLLECTED

Ovambo: *Ombánji-kakóro*.

Bechuana: *Rantalájě*.

¹ The Black-Backed Jackal is one of the few medium-sized mammals in S.W. Africa that penetrate through the Namib Desert to the coast. The Namib Desert is the only true rainless desert in Southern Africa, and most of the smaller mammals living in it show a tendency to a still more pallid coloration than is assumed farther inland.

² *Schæffia* Hiltzheimer, 1906, Zool. Beob. Frankfurt, a.m. 47, pp. 363–373; genotype *S. adustus* Sundevall.