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Lutra maculicollis.

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Lutra Brünnich, 1771

Mustela Linnaeus, 1758:45. Type species *Mustela lutra*.
Lutra Brisson, 1762:13. Type species *Mustela lutra* Linnaeus. Not valid (Ellerman and Morrison-Scott 1951).
Lutra Brünnich, 1771:34. Type species *Mustela lutra* Linnaeus.
Lutris Duméril, 1806:12. Modification of *Lutra*.
Lutrix Rafinesque, 1815:59. Substitute for *Lutra*.
Barangia Gray, 1865:123. Type species *Lutra sumatrana*.
Hydrogale Gray, 1865:131. Type species *Lutra maculicollis* Lichtenstein.
Lutronectes Gray, 1867:180. Type species *Lutronectes whiteleyi* (= *Mustela lutra* Linnaeus).
Hydrictis Pocock, 1921:543. Type species *Lutra maculicollis* Lichtenstein.

CONTEXT AND CONTENT. Order Carnivora, family Mustelidae, subfamily Lutrinae. The genus *Lutra* includes 3 species: *L. lutra* (European otter), *L. maculicollis* (spotted-necked otter), and *L. sumatrana* (hairy-nosed otter). A key to species, modified from Coetzee (1977) and Harris (1968) follows:

1 Rhinarium and septum naked 2
Rhinarium and septum hairy ..... *L. sumatrana*
2 White mottling on throat; length of braincase more than mastoid width; mastoid process poorly developed; infraorbital foramen oval ..... *L. maculicollis*
No white mottling on throat; length of braincase less than mastoid width; mastoid process strongly developed; infraorbital foramen round ..... *L. lutra*

Lutra maculicollis Lichtenstein, 1835

Spotted-necked Otter

Lutra maculicollis Lichtenstein, 1835:89. Type locality "Am östlichen Abhange der Bambusberge Kafferland." (Bamboo Mountains, 31°30′S 26°20′E near Sterkstroom, eastern Cape Province, South Africa).
Lutra grayii Gerrard, 1862:101. Nomen nudum.

CONTEXT AND CONTENT. Generic context as above. The spotted-necked otter was classified as its own genus *Hydrictis* (Davis 1978), but morphological data do not support this (Van Zyll de Jong 1987). *Hydrictis* is a valid subgenus (Ellerman et al. 1953; Pocock 1921). *L. maculicollis* is monotypic, although, based on variation in color, up to 7 subspecies have been proposed (*chobiensis* Roberts, *kivuana* Pohle, *maculicollis* Lichtenstein, *matschiei* Cabrera, *mutande* Hinton, *nilotica* Thomas, and *tenuis* Pohle). This variation probably reflects individual differences rendering the subspecies invalid (Kingdon 1997; Shortridge 1934).

DIAGNOSIS. *Lutra maculicollis* can be differentiated from sympatric clawless otters (*Aonyx capensis* and *A. congicus*) by smaller size (3–5 kg for *L. maculicollis* versus 12–18 kg for *Aonyx*), slimmer body, white markings on neck, fully webbed forefeet, and presence of claws on all 4 feet (Smithers 1983). In the field, scats of *L. maculicollis* average 15 mm in diameter (range, 11–21 mm), whereas feces of *Aonyx* average 25 mm (range, 22–29 mm—Rowe-Rowe 1992). *L. maculicollis* leaves smaller tracks (40–45 mm wide) compared with tracks of *Aonyx* (60–90 mm wide—Rowe-Rowe 1993).

GENERAL CHARACTERS. The spotted-necked otter (Fig. 1) has a long, slim body with a long, tapering tail that is flattened dorsoventrally. Feet are fully webbed, and each digit has a sharp claw ca. 10 mm in length. Claws on hind feet are slightly shorter. Head is large and broad at the back and narrows to a short and broad muzzle. Nose pad is naked. Ears are short and round (Skinner and Smithers 1990; Smithers 1983).

Pelage varies from chocolate to reddish brown and is uniform throughout. Guard hairs are ca. 15–20 mm long. Throat and upper chest are mottled with blotched white or creamy-white markings. White markings on neck and chest are rarely absent, and spotted-necked otters in South Africa generally do not have as much white on neck as those from further north in Africa (D. T. Rowe-Rowe, pers. comm.). Some animals bear white markings on inguinal area. Chin and upper lip are white. Color varies greatly among individuals (Shortridge 1934; Skinner and Smithers 1990), and albinos or partial albinos occur (Procter 1963).

Males are larger and heavier than females. Average measurements (in mm, range in parentheses) for 3 adult males and 3 adult females, respectively, from South Africa were: length of head and body, 730 (710–760), 585 (570–605); length of tail, 418 (385–440), 430 (410–440); length of hind foot, 132 (120–154), 113 (111–115); and length of ear, 19 (17–21), 18 (15–20—Perrin and D'Inzillo Carranza 1999). The same measurements (in mm) for 2 males and 1 female, respectively, also from South Africa were: length of head and body, 575, 593, 595; length of tail, 362, 374, 405; length of hind foot, 116, 120, (no data for female); and length of ear, 18, 19, 16 (Roberts 1951). Measurements (in mm) of 1 immature female

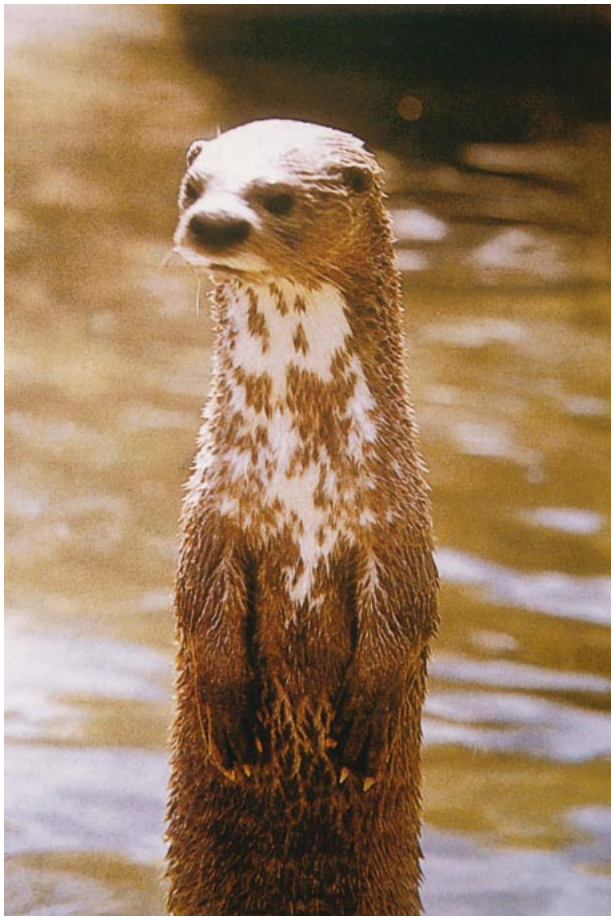

FIG. 1. Adult *Lutra maculicollis*. Photo courtesy of Michael Somers.

FIG. 2. Dorsal, ventral, and lateral views of cranium and lateral view of mandible of *Lutra maculicollis* (sex unknown, American Museum of Natural History #51828). Greatest length of cranium is 104.7 mm.

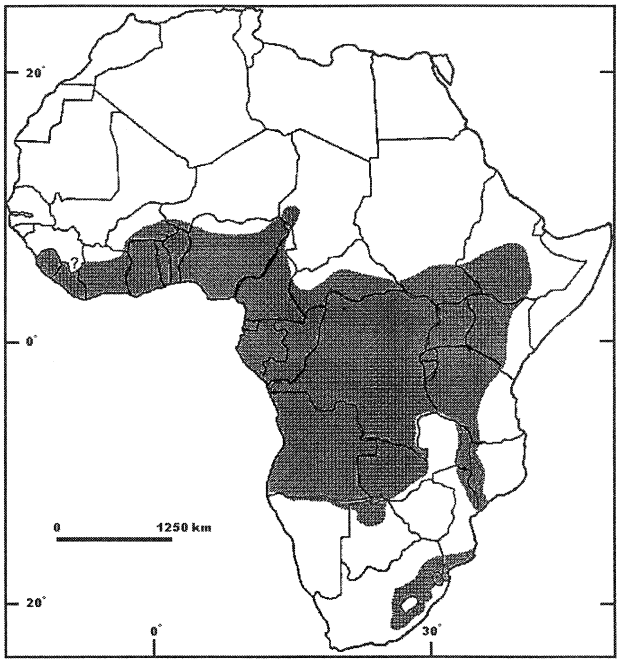

FIG. 3. Distribution of *Lutra maculicollis* in Africa, modified from Crawford-Cabral (1989), Pringle (1977), Rowe-Rowe (1990a, 1990b, 1995), Rowe-Rowe and Somers (1998), Skinner and Smithers (1990), Smithers (1971), and Stuart (1985).

from Shakawe, Bostwana, were: total length, 965; length of tail, 390; length of hind foot, 98; and length of ear, 15. Body mass was 3 kg (Smithers 1971). In KwaZulu-Natal, a captive adult female weighed 3.3 kg (Rowe-Rowe 1978b). Although mass may reach 9 kg (Dorst and Dandelot 1970; Roberts 1951), this is an extreme, as few individuals exceed 6 kg. Average mass of 3 adult males and 3 adult females from South Africa was 5.8 kg (range, 5.7–6.0) and 4.3 kg (range, 3.8–4.7), respectively. One subadult male weighed 4.5 kg (Perrin and D'Inzillo Carranza 1999). Other weights are: 3.5 kg for 1 female from Zambia (Mortimer 1963), and 4.3 and 4.5 kg for 2 males from Botswana (R. C. Biggs in Rowe-Rowe 1978b; Mortimer 1963).

Skull (Fig. 2) is lightly built, and bone structure is thin. Braincase is ovoid, broad at back, and narrows at the interparietal constriction. Rostrum is short and broad. Condyle is broad and high, and sagittal crest is well developed. Zygomatic arches are thin but broad (Skinner and Smithers 1990; Smithers 1983). Average skull measurements (in mm, range in parentheses) for 3 males and 2 females, respectively, from South Africa were: greatest length, 107.1 (105–108.5), 95.9 (94.2–97.5); basiliar length, 96.9 (95.5–99.0), 85.8 (84.0–87.5); zygomatic width, 63.8 (63.0–65.0), 55.8 (52.0–59.5); and mastoid width, 54.3 (52.0–56.0), 50.7 (48.4–53.0).

DISTRIBUTION. The spotted-necked otter is widely distributed in Africa, south of 10°N (Fig. 3). It ranges from Eastern Cape Province in the south, through the Orange Free State, KwaZulu-Natal, Transvaal, and north to Liberia on the west and Sudan and Abyssinia to the east. It occurs in Angola, Benin, northwestern Botswana, Cameroon, Central African Republic, Chad, Congo, Ethiopia, Gabon, Kenya, Malawi, Mozambique, extreme north of Namibia, Rwanda, Tanzania, Uganda, Zaire, western Zambia, Benin, Botswana, Burundi, eastern South Africa, southern Sudan, and Swaziland. The spotted-necked otter also possibly occurs in Ghana, Ivory Coast, Lesotho, Liberia, Togo, and Sierra Leone. Its status is unknown in Equatorial Guinea, Ghana, Mali, and Niger (Kadongola 1994; Rowe-Rowe 1990a, 1990b, 1995).

FOSSIL RECORD. The Lutrinae probably invaded Africa during the Pliocene. The genus *Lutra* is known from the Pleistocene (Hopwood and Hollyfield 1954). Recent forms of Lutrinae can be arranged by the degree of specialization of the dentition, with *L. lutra*, *L. maculicollis*, and *L. sumatrana* having the most primitive dentition (van Zyll de Jong 1972). The oldest fossil record of a river otter from the Old World is *Lutra palaeindica* Falconer and Cautley from the late Pliocene (Savage and Russell 1983). *Lutra* appears in Africa in the early Pleistocene (Savage 1978), and a common Pliocene ancestor for all 3 *Lutra* species is probable (van Zyll de Jong 1987). No fossils of *L. maculicollis* are known, but remains of *Lutra fatimazohrae* discovered in Casablanca, Morocco, indicate that this species is probably an ancestor of African *Lutra* (Geraads 1997).

FORM AND FUNCTION. Dental formula is i 3/3, c 1/1, p 4/3, m 1/2, total 36 (Skinner and Smithers 1990; Smithers 1983). Dentition of the spotted-necked otter reflects specializations for capturing and eating fish. The glenoid condyle is long and fits snugly into the glenoid fossa on the skull, allowing no sideways movements. Upper canines are sharp and relatively heavy, whereas lower canines are distinctly recurved. Inner parts of P4 and m1 are broad for holding and crushing, and carnassials are sharp for cutting fish (Skinner and Smithers 1990; Smithers 1983).

Cranial volume of 9 spotted-necked otters averaged 49 ml (*SD,* 6.5). Encephalization quotient (relative volume of brain to body mass) was 1.28 (Sheppey and Bernard 1984).

Females have 2 pairs of abdominal mammae (Skinner and Smithers 1990; Smithers 1983). Males have a baculum that may reach 80 mm in length. Testes are scrotal and prominent, but penis is subcutaneous to reduce drag in aquatic locomotion (Davis 1978).

REPRODUCTION. On Lake Victoria, Tanzania, mating occurs in July, and young are born in September after a gestation of ca. 2 months. In Zambia, 3 2-week-old cubs from 1 litter were captured in December (Mortimer 1963). Delayed implantation probably does not occur (Procter 1963). Litter size ranges from 1 to 3 (Shortridge 1934; Smithers 1966). Two litters observed in KwaZulu-Natal were of 1 and 2 young, respectively (Rowe-Rowe 1978b). Young are born blind and remain with the mother for up to 1 year. Males do not provide parental care (Kingdon 1997).

ECOLOGY. *Lutra maculicollis* is almost exclusively aquatic and seldom ventures >10 m from water. It occurs mostly on larger rivers, lakes, and swamps with large areas of open water. In KwaZulu-Natal, South Africa, active, spotted-necked otters were most often located in rivers (40% of 706 locations on 7 adults) and near dams (45%), with only occasional use of swamps (3%) and oxbow lakes (2%—Perrin and Carugati 2000a; Perrin and D'Inzillo Carranza 2000a). Typically, presence of spotted-necked otters is associated with abundance of small fishes, continuity of lakeside vegetation, absence of crocodiles (*Crocodilus niloticus*), lack of pesticide pollution, and low predation by humans (Lejeune and Frank 1990). Spotted-necked otters do not occupy estuarine or ocean waters.

Wherever they occur, spotted-necked otters use shallow more than deep waters. In Rwanda, use of shallow water was associated with greater abundance of the main prey, a small cychlid fish (*Haplochromis*—Lejeune 1989a). Typically, almost all fishing was done <10 m from shore, with most effort within 2 m (Kruuk and Goudswaard 1990).

The spotted-necked otter consumes fish (*Barbus*, *Clarias*, *Haplochromis*, *Micropterus salmoides*, *Salmo trutta*, and *Tilapia*), crabs (*Potomonautes*), and frogs (mostly *Xenopus laevis* and *Rana*). Fish dominate the diet (Perrin and Carugati 2000b), and other prey are important only when fish are not abundant (Rowe-Rowe and Somers 1998). On Lake Victoria, Tanzania, 61% of scats collected (n = 61) contained *Haplochromis*, 46% *Tilapia*, 14% catfish (*Bagrus* or *Clarias*), and 1% crab (*Potamon niloticus*—Kruuk and Goudswaard 1990). Direct observations of feeding otters also revealed a diet dominated by *Haplochromis* (Procter 1963). On Lake Muhazi, Rwanda, an analysis of 154 scats indicated that spotted-necked otters consumed 80% fish, 10% insects, 3% molluscs, and <2% of birds and frogs (Lejeune 1990). During a severe drought of the Bushmans River in Eastern Cape Province, South Africa, diet of spotted-necked otters was mostly fish (47%), crab (38%), and frog (8%), based on analysis of 79 scats. In a recent study in KwaZulu-Natal, frequency of occurrence of items in 516 scats was 64% fish, 43% crabs, 43% amphibians, 18% insects (Perrin and Carugati 2000b). In contrast, frequency of occurrence of items in 228 scats collected in KwaZulu-Natal near a trout river indicated a predominance of crab (39%), fish (38%), and frogs (20%), with a minor (≤2%) proportion of insects (mostly dragonfly, Odonata, larvae), and unidentified birds (Rowe-Rowe 1977a). Similarly, 66 scats collected in a nontrout area contained crab (30%), frog (27%), fish (25%), birds (10%, mostly Anatidae and *Podiceps ruficollis*), and insects (5%). Stomach contents were examined from 3 spotted-necked otters from the Cape Province: 1 contained crab remains; 1 contained frogs and fish; and 1 contained frogs, fish, a beetle (Coleoptera), and a caterpillar (Stuart 1981). Crab is the major dietary item during spring, summer, and autumn, whereas fish dominate in winter. Most fish consumed by *L. maculicollis* are <200 mm in length (Kruuk and Goudswaard 1990; Lejeune 1990; Rowe-Rowe 1977a). In fish-rich waters of east and central Africa, the diet consists almost entirely of fish, whereas in fish-poor waters of South Africa, crabs and frogs are consumed in addition to fish (Rowe-Rowe and Somers 1998).

Home ranges of males are larger than those of females. In KwaZulu-Natal, mean home range (100% minimum convex polygon ± *SD*) for 3 males and 3 females averaged 16.2 ± 1.2 and 5.8 ± 4.2 km^2, respectively (Perrin et al. 2000). Spotted-necked otters are not territorial, and home ranges show strong intra- and intersexual overlap (Perrin et al. 2000).

Density of spotted-necked otters on Lake Muhazi (3.4 km^2 in size), Rwanda, was 2 otters per km of shoreline (Lejeune and Frank 1990). In KwaZulu-Natal, density was 0.4–0.6 otters per km of shoreline (Perrin et al. 2000). Near Kageye, Tanzania, 9–10 otters occupied a 10-km section of coast of Lake Victoria (Kruuk and Goudswaard 1990; Procter 1963). In KwaZulu-Natal, South Africa, density of otters was estimated at 1 otter per 6–11 km of river (Rowe-Rowe 1992) and at 1 otter per 1.6–2.4 km of river (Perrin et al. 2000).

The spotted-necked otter does not compete with African clawless otters (*Aonyx*—Rowe-Rowe and Somers 1998) although the distribution of *L. maculicollis* completely overlaps that of *A. congicus* and overlaps with 70% of the distribution of *A. capensis* (Rowe-Rowe and Somers 1998). Where sympatric, *A. capensis* and *L. maculicollis* consume 66% of the same prey species. Coexistence is possible because *Aonyx* is a crab hunter, whereas *L. maculicollis* is specialized for hunting fish (Perrin and Carugati 2000b; Rowe-Rowe 1977a). Competition with the water mongoose (*Atilax paludinosus*) is limited because mongoose makes use of terrestrial habitats and only marginal use of aquatic habitats (Rowe-Rowe 1977a; Somers and Purves 1996).

Endoparasites include trematodes *Baschkirovitrema incrassatum*, *Cynodiplostomum namrui*, and *Prudhoella rhodesiensis* (Round 1968). One young male was infested with numerous unidentified stomach nematodes (Lejeune 1990).

In the wild, spotted-necked otters may be killed by crocodiles (Lejeune and Frank 1990), although crocodiles are unlikely to limit the abundance of spotted-necked otters (Kruuk and Goudswaard 1990). Fish eagles (*Haliaetus vocifer*) also may kill juveniles (Kruuk and Goudswaard 1990). Longevity in the wild may reach 8 years (Davis 1978).

Spotted-necked otters, because of their position in the food chain, may accumulate organochlorines and other biocontaminants. Concentrations (mg/kg of extractable fat) of contaminants in 4 scats of *L. maculicollis* collected in KwaZulu-Natal were 0.02 for dieldrin (range 0.02–0.03), 0.04 for *o,p*-DDE (range 0.03–0.08), and 0.12 for total PCB (range, 0.05–0.24—Mason and Rowe-Rowe 1992).

Prior to 1973, the spotted-necked otter was intensively hunted around Lake Muhazi for its fur and a pelt sold for $US40 (Lejeune and Frank 1990). Although protected in most countries, spotted-necked otters still may be killed for their skins, as pests when they disturb fishing nets, or because they are regarded as competitors for fish (Lejeune 1989a, 1989b; Procter 1963; Rowe-Rowe 1986, 1990a). Accidentally, *L. maculicollis* can drown when caught in fish nets (Kruuk and Goudswaard 1990); however, these incidents are rare (Smith 1993). Meat from spotted-necked otters may be consumed or sold as "bush meat" (Rowe-Rowe 1990a).

Spotted-necked otters can be captured in cage traps (800 by 800 by 1,400 mm) baited with fish. Animals can be anesthetized with ketamine hydrochloride (5–10 mg per kg of body mass). In South Africa, trapping success was 1 capture per 59 trap nights (Perrin and D'Inzillo Carranza 1999). Spotted-necked otters have bred successfully at Brookfield Zoo in Chicago, Illinois (Foster-Turley 1990).

BEHAVIOR. The spotted-necked otter is mostly diurnal with peaks of activity during early morning and late afternoon (Lejeune 1989a; Rowe-Rowe 1978b). In KwaZulu-Natal, spotted-necked otters were most active 6 to 9 am and 3 to 9 pm (Perrin and D'Inzillo Carranza 2000b). Nocturnal activity increased during full moons (Perrin and D'Inzillo Carranza 2000b).

Spotted-necked otters may travel in groups of up to 20 (Rowe-Rowe and Somers 1998), although groups typically are <5 (Perrin et al. 2000). Group sizes from 14 sightings of *L. maculicollis* in KwaZulu-Natal were 6 singles, 3 pairs, 3 trios, and 1 each of 4 and 5 (Rowe-Rowe 1978b). In Rwanda, 75% of observations were of solitary otters (Lejeune 1989a). Pairs or trios occurred on occasion and consist most often of a female with young (Lejeune 1989a). In Rwanda, maximum group size was 11 (Lejeune 1989a).

Group size varies according to locality. In Rwanda, most animals foraged alone (Lejeune 1989a). In Tanzania, spotted-necked otters foraging in Lake Victoria most often fished in groups of 3.2 otters (n = 16 groups). In contrast, solitary animals were observed on only 5 occasions (Kruuk and Goudswaard 1990). In Tanzania, groups most often traveled together but fed individually.

When traveling in water, the spotted-necked otter travels by a series of short (ca. 5 m) horizontal dives, surfacing only momen-

tarily before diving again. When traveling on land, otters mostly use regular trails that usually represent the shortest distance between 2 water bodies. Otters walk, run, or gallop; however, travel on land appears awkward (Mortimer 1963; Rowe-Rowe 1978a). Estimated speeds for running, galloping, and swimming of a young female in captivity were 4–5 km/h, 6–7 km/h, and 3–4 km/h, respectively (Mortimer 1963). On land, *L. maculicollis* may stand vertically on its back feet. Spotted-necked otters sleep curled up (Mortimer 1963).

Lutra maculicollis generally fishes alone. When fishing in groups, cooperation among otters may help facilitate prey capture as otters herd fish toward other otters. Fishing in groups probably occurs when females are training their young (Lejeune 1989a).

When hunting, *L. maculicollis* performs short (<20 s) dives. When diving, the back is arched, and the otter dives straight down. Crabs, fish, and frogs are captured with the mouth; forefeet are not used in prey capture. In Lake Victoria, Tanzania, fish <10 cm were eaten in water, whereas larger fish were taken to shore by mouth for consumption (Kruuk and Goudswaard 1990). Fish <60 mm in length are eaten from the head, but larger fish are eaten tail first (Rowe-Rowe 1977b). Food is held down with the forefeet. Otters may reuse some eating sites (Procter 1963; Rowe-Rowe 1977b, 1992). A captive spotted-necked otter did not lap to drink, yet lapping occurred when eating chicken eggs (Mortimer 1963).

Fishing forays typically last 10–20 min but may reach >3 h (Lejeune 1989a). During 468 min of fishing (in several bouts), spotted-necked otters made 412 captures, mostly of small fish (*Haplochromis* and *Tilapia*), for a rate of capture of 1 per 1.1 min (Lejeune 1989a). Average number of dives for each fish captured was 2.0 (range 1–11, $n = 267$ dives—Lejeune 1989a). If each fish weighs 5.7 g, then each otter must fish for 97 min each day to obtain 500 g of fish (Lejeune 1989a). On Lake Muhazi, spotted-necked otters displayed 2 strategies: fish for small fishes such as *Haplochromis* and *Tilapia* near shore or seek larger fish already present in commercial fishing nets (Lejeune 1989b, 1990).

In captivity, *L. maculicollis* hunts by swimming underwater and scanning for prey by turning its head from side to side. Once sighted, each prey is pursued rapidly until it is captured or escapes (Rowe-Rowe 1977b).

Spotted-necked otters groom by rolling and rubbing against inanimate objects, on grass, sandbars, or flat rocks (Rowe-Rowe 1978a). *L. maculicollis* urinates and defecates on rocks or near promontories, usually on flat rocks just above the water surface (Kruuk and Goudswaard 1990; Procter 1963). Sprainting sites are used repeatedly (Kruuk and Goudswaard 1990). In KwaZulu-Natal, spraint sites were typically near water, 0.5–1.0 m deep. Mean distance to water was 2.4 m (range, 1–10 m; $n = 42$), and only 1 spraint site was >6 m from water (Rowe-Rowe 1992). Mean diameter of feces was 15 mm (range, 11–21 mm; modes, 12, 16 mm; $n = 85$—Rowe-Rowe 1992).

Spotted-necked otters shelter in rock cavities, bank dens, holes in root systems, or dense vegetation. In KwaZulu-Natal, 7 spotted-necked otters located 974 times when resting used holes among trees and shrub roots (29%), reeds (21%), small islands near dams (23%), tall grass (14%), swamps (11%), or sheltered places among rocks (2%—Perrin and D'Inzillo Caranza 2000a). Spotted-necked otters can dig burrows (Rowe-Rowe 1992). A 4.2-km section of river in KwaZulu-Natal contained 10 resting sites; mean distance between dens was 467 m (Rowe-Rowe 1992).

Vision is acute at short distances but limited over 3 m. In captivity, spotted-necked otters detected moving objects up to 10 m away (Mortimer 1963). Sense of smell is fair, and captive spotted-necked otters may react to the smell of water. Hearing is excellent, and captive spotted-necked otters respond when their name is called (Mortimer 1963).

In the wild, juveniles often perform play-fighting (Procter 1963). In captivity, young spotted-necked otters play by throwing an object in the water and trying to retrieve it before it reaches the bottom (Rowe-Rowe 1978a) or by pawing at a ball until it rolls then chasing it (Mortimer 1963).

Two main calls are emitted in the wild: a high-pitch whistle used during play-fighting and a rapidly-repeating shrill chatter used during aggressive interactions (Procter 1963; Rowe-Rowe 1978a). Variations of these calls may be heard (Davis 1978; Procter 1963).

CONSERVATION STATUS. *Lutra maculicollis* is not listed in the International Union for the Conservation of Nature Red Data Book (Rowe-Rowe 1986). However, its status may be changed from "not listed" to "vulnerable" (Reuther 1999). In the Cape Province of South Africa, the spotted-necked otter is considered endangered. Surveys of its presence by direct observation are difficult because of the similarities between spotted-necked otter and both clawless otters and water mongoose in water (Rowe-Rowe 1985; Stuart 1985). Currently, threats to the spotted-necked otter are destruction and alteration of waterways, especially via agricultural development that increases sediments and reduces visibility of water. Because *L. maculicollis* hunts primarily by sight, muddy water reduces its ability to feed and decreases the suitability of waterways. Protective measures should target maintaining the clarity of water, especially in systems where *L. maculicollis* still occurs (Mason and Macdonald 1990; Rowe-Rowe 1995; Stuart 1985). Introductions of predatory fish such as Nile perch (*Lates niloticus*) that are not consumed by the spotted-necked otters, but which compete with other fish, may decrease suitability of waterways for *L. maculicollis* (Kruuk and Goudswaard 1990).

GENETICS. *Lutra maculicollis* has 2n = 40 chromosomes and is the only otter species with >38 chromosomes, and FN = 66. The X chromosome is submetacentric and the Y chromosome is metacentric (van Zyll de Jong 1987).

REMARKS. Recent analyses on mitochondrial cytochrome-*b* sequences indicate that the genus *Lutra* is paraphyletic and that *L. maculicollis* diverged before the clade that includes *A. capensis*, *A. congicus*, and *L. lutra* (Koepfli and Wayne 1998).

Lutra is otter in Latin. The specific name *maculicollis* is from the Latin *macula* meaning spotted and *collis* meaning neck (Borror 1960). Other vernacular names include spot-necked otter. The spotted-necked otter is called loutre à cou tacheté in French; Krallen-Otter in German; nutria de cuello manchado in Spanish; and fisi maji, which means water hyena, in Swahili. In Africa, local names include Leníbi, Níbi, Mbárgo, kleinotter (Afrikaans), leNyibi (Tswana), and inTini (Zulu—D. T. Rowe-Rowe, pers. comm.; Shortridge 1934). In the culture of the Mbuti pygmies in northeastern Zaire, parents of young children are forbidden to eat this otter because their babies would risk a dangerous case of dysentery (Carpaneto and Germi 1989).

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