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LITERATURE CITED

DUNN, E. K. 1973. Robbing behavior of Roseate Terns. Auk 90: 641–651.

ELSTON, S. F., C. D. RYMAL, & W. E. SOUTHERN. 1977. Intraspecific kleptoparasitism in breeding Ring-billed Gulls. Pp. 102–109 *in* Proc. 1977 Conf. of the Colonial Waterbird Group, DeKalb, Illinois.

HATCH, J. J. 1970. Predation and piracy by gulls at a ternery in Maine. Auk 87: 244–254.

HAYS, H. 1970. Common Terns pirating fish on Great Gull Island. Auk 82: 99–100.

HOPKINS, C. C., & R. H. WILEY. 1972. Food parasitism and competition in two terns. Auk 89: 583–594.

SOUTHERN, W. E., & L. K. SOUTHERN. 1981. Colony census results as indicators of pre-hatching perturbations. Colonial Waterbirds 4: 143–149.

———, & ———. In press. Intensification of adult Ring-billed Gull Aggression during reproduction and its possible consequences. Colonial Waterbirds.

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First Record of the South American Pochard in Central Brazil

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The South American Pochard (*Netta erythrophthalma erythrophthalma*) is a little known pochard, spottily distributed in Venezuela (Caribbean coast), Colombia (Caribbean coast, temperate zone of the Eastern Andes, the southeast, and Cauca Valley), southeastern Ecuador, Peru (west of the Andes), northern Chile, northern Argentina, and sporadically in eastern and northeastern Brazil (Meyer de Schauensee 1966). In Brazil it has been collected in Belmonte (Bahia, 15°51'S, 38°54'W), Lagoa da Ribeira (Rio de Janeiro, 22°08'S, 41°28'W) (Coimbra-Filho 1969), and Baturité (Ceará, 04°20'S, 39°00'W). (Specimens are in the Museu de Zoologia da Universidade de São Paulo). The ecology and biology of the South American Pochard are almost unknown.

On 8 August 1980, while banding waterfowl at Santa Maria reservoir, we saw 100 South American Pochard for the first time in central Brazil. The 825-ha reservoir is in the middle of the Brasília National Park (15°40'S, 47°50'W) at an altitude of 1,100 m. Dammed in 1970, it was formed by the Barriguda, Vargem Grande, and Milho Cozido Rivers. It is surrounded by cerrado vegetation and has swampy vegetation only at the mouths of the rivers. The water level is variable because of the well-marked dry (May–September) and rainy (October–April) seasons. South American Pochards, Brazilian Teal (*Amazonetta brasiliensis*), White-faced Tree-Ducks (*Dendrocygna viduata*), Black-bellied Tree-Ducks (*D. autumnalis*), sandpipers, and other water birds use the reservoir year round or seasonally. Only the Brazilian Teal and the Pied-billed Grebe (*Podilymbus podiceps*) breed there. The reservoir has been regularly mist-netted since July 1979.

The first flock of pochards was seen on 8 August 1980 along the shore of the reservoir at 1400. Most were sleeping or preening; a few were feeding in 20 cm of water near the shore. Between 100 and 150 pochards of both sexes were seen in the same place on 30 August, 3 September, and 13 September 1980. They disappeared after 13 September 1980. On 22 February 1981, between 0430 and 0600, several flocks of pochards were seen at the reservoir, flying west to east close to surface of the water. All flocks numbered between 50 and 100 birds. A male was netted in the Milho Cozido River mouth and banded with CEMAVE band number S-00511. It was in full adult plumage, and its iris was deep red. When released in the water, the male dove instead of taking flight, the normal escape behavior of the other duck species banded. Each dive was about 50 m long and lasted 20 s. The male wasn't damaged by the net, and its remiges were fully grown.

On 4 April 1981, 20 pochards were seen at the reservoir. Eight were molting the remiges and could not fly. On 13 June 1981, at the mouth of the Barriguda River, five males and two females were seen; all were in wing molt. Four of six males, collected on 3 and 6 August 1958 in Baturité, Ceará and housed in the Museu Paulista de História Natural, were molting the remiges (pers. obs.). These data indicate great variation in the timing of wing molt in the South American Pochard.

We suggest that the southern Pochard has colonized the Central Brazilian Plateau by expanding its range from southeastern coastal Brazil. The new reservoirs constructed in the Paraná and São Francisco basins have furnished new habitat suitable for these species, as, for example, that of the Brasilia National Park reservoir.

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LITERATURE CITED

COIMBRA-FILHO, A. F. 1969. Sobre a ocorrência de *Anas discors* Linné, 1776 e de *Netta erythrophthalma* (Wied, 1832) no Estado do Rio de Janeiro, Brasil (Anatidae, Aves). Rev. Bras. Biol. 29: 87–95.

MEYER DE SCHAUENSEE, R. 1966. The species of birds of South America and their distribution. Wynnewood, Pennsylvania, Livingston Publ. Co.

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The Magellanic Penguin (*Spheniscus magellanicus*): Sexing Adults by Discriminant Analysis of Morphometric Characters

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The identification of sexes in the Magellanic Penguin (*Spheniscus magellanicus*) is a subject of interest for researchers of this species, but several attempts to discriminate sexes based on external characters (Conway 1965, Boswall and MacIver 1974, Daciuk 1976) have met with only modest success. Probably differences in age or size between members of a pair contribute to this problem. Morphometric indices have been used for other species of penguins with varying success. Stonehouse (1971) measured seven characters in two populations of *Eudyptes robustus*, obtaining an acceptable degree of sex separation with length and depth of the bill. He found overlap, however, in the ranges of the variables and also differences between populations. Ainley and Emison (1972) and Warham (1972) found significant differences in bill dimensions in *Pygoscelis adeliae* and *Eudyptes sclateri*, respectively. Warham (1975) summarizes data on bill and flipper dimensions for several species of crested penguins that show a considerable dimorphism, especially in the bill. Other authors, such as Ainley (1978) and Sladen (1978), sexed penguins by examination of the cloaca. Our superficial examination of the cloaca of *Spheniscus* gave inconsistent results. Probably an in-depth examination, together with the use of adequate instruments and a good deal of practice, could change this.

Our objective in this study was to find a method of sexing penguins based on ethological considerations that was harmless to the animal and easy to use in the field, even for the unskilled researcher or technician. Specimens for this study were collected at the colony of Punta Tombo (Chubut, Argentina), described in previous contributions (Scolaro et al. 1979, 1980), during the breeding season 1976–1977. Samples of pairs were taken at random from the nesting population. For each individual, 10 measurements were taken, and its sex was determined by dissection. A total of 49 pairs were used for the analysis (n = 98).

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TABLE 1. Morphometric data for Magellanic Penguins (means and standard deviations).[a]

	Males		Females		Pooled	
Variable	Mean	SD	Mean	SD	Mean	SD
BW	4.47	0.49	3.77	0.40	4.11	0.56
L	64.5	2.2	61.4	2.2	63.0	2.7
FL	19.5	0.5	18.6	0.5	19.0	0.7
FB	6.3	0.2	6.0	0.2	6.1	0.3
LT	4.94	0.22	4.64	0.19	4.79	0.26
LMT	8.2	0.3	7.6	0.4	7.9	0.4
AE	5.5	1.0	5.2	0.8	5.3	0.9
FA	6.8	0.4	6.1	0.4	6.5	0.5
BL	5.88	0.26	5.45	0.20	5.66	0.32
BD	2.50	0.11	2.16	0.13	2.33	0.21
R	0.82	0.14	0.84	0.13	0.83	0.13

[a] BW in kg; other measurements in cm; n = 49 for males and females; n = 98 for pooled set.