

## MATERIALS, METHODS, AND TERMINOLOGY

The specimens used in this study are described in Table 2. The muscle descriptions and illustrations are principally based on INPA-PB 14, the embalmed carcass of a young female calf, which was the most thoroughly dissected. Observations on most regions of the body were made in the course of fleshing out the skeletons of INPA-PB 6, 8, and 9; dissections of INPA-PB 12, 108, 117, and 169 provided supplementary information. Specimens other than INPA-PB 14 are mentioned in the text only where they were found to differ from it; unless otherwise stated, all descriptive statements refer to INPA-PB 14.

As the forms and relations of most muscles are similar in all sirenians and have been described at some length in the works alluded to above, I give here somewhat abbreviated accounts of them, emphasizing origins, insertions, and interspecific and intras-

pecific variations. Literature citations refer, where not otherwise stated, only to descriptions of *Trichechus*; for references to the myology of *Dugong*, see Domning, 1977a.

Muscle homologies suggested are based on gross relations. In the headings of individual muscle descriptions, muscle names in quotation marks are names I have coined. The illustrations are semidiagrammatic and, with a few exceptions, structures other than muscles, tendons, and bones are omitted. The directions of muscle fibers are indicated by solid lines, and those of tendinous or aponeurotic fibers by dashed lines. Muscle origins are denoted by a pattern of circles, insertions by a pattern of vertical dashes. The abbreviations beginning with capital letters refer to muscles and those beginning with lower-case letters refer to other structures; all are explained in the "List of Abbreviations" or in the captions.

TABLE 2. Material of *Trichechus inunguis* used in present study.

Specimen number, Sex, and Age	Body Length (curved line) (cm)	Maximum Girth (cm)	Weight (kg)	Locality	Parts Dissected
INPA-PB 6 ♀ (juv.)	100.2	61.6	14	Central Amazon Basin	Entire body
INPA-PB 8 ♀ (juv.)	97.2	67.9	15	Central Amazon Basin	Entire body
INPA-PB 9 ♂ (juv.)	92.5	53.8	10.5	Near Manacapuru, Rio Solimões, Amazonas	Entire body
INPA-PB 12 ♀ (juv.)	103.5	61.0	14	Paraná Autáz-Açú, lower Rio Madeira, Amazonas	Facial muscles
INPA-PB 14 ♀ (juv.)	107.1	70.2	18	Lago do Acará Grande, Paraná Autáz-Açú, lower Rio Madeira, Amazonas	Entire body
INPA-PB 108 ♂ (adult)	205*	?	~160	Ilha Juçara, near Coari, Rio Solimões, Amazonas	Male pelvic muscles
INPA-PB 117 ♂ (adult)	222*	?	~250	Lago Mamorí, south of Manaus, Amazonas	Larynx and right forelimb
INPA-PB 169 (juv.)	?	?	?	Central Amazon Basin	Head

\* Straight-line lengths.

The specimens used in this study all had 6 cervical, 15 thoracic, and 25 or 26 postthoracic vertebrae, and 15 pairs of ribs, of which 3 attached to the sternum, except in INPA-PB 6 where only two were attached. (In INPA-PB 8, the third costal cartilage ended about halfway to the sternum and was connected to it only by a ligament.) As there is no well-defined ligament connecting the ischium with, and thereby serving to identify, a sacral vertebra, I have avoided trying to distinguish between lumbar, sacral, and caudal vertebrae. There are 8 pairs of chevron bones, the anterior-most pair articulating with postthoracic vertebrae 3 and 4.

Muscle wet weights (Tables 3, 8) were determined by careful excision and weighing

in a cool, humid environment; weight loss due to desiccation is believed to have been negligible. All specimens had previously been frozen. As all jaw muscle weights were taken from calves too young to have been weaned and which had probably not begun to eat a significant quantity of solid food, it is uncertain whether they show exactly the conditions found in adults, though it is improbable that the adult muscle proportions are significantly different.

All specimens discussed are deposited and cataloged in the collection of the Instituto Nacional de Pesquisas da Amazônia, Departamento Peixe-Boi (INPA-PB), Manaus, Brazil.