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First Record of a Risso's Dolphin (*Grampus griseus*) Stranding for Louisiana

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SHORT PAPERS AND NOTES

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FIRST RECORD OF A RISSO'S DOLPHIN (*GRAMPUS GRISEUS*) STRANDING FOR LOUISIANA.—The Risso's dolphin (*Grampus griseus*) is one of 28 cetacean species known to occur in the northern Gulf of Mexico (Jefferson and Schiro, 1997; Würsig et al., in press). This species is found along the mid- to upper slope in the Gulf (Jennings, 1982; Fritts et al., 1983; Mullin et al., 1994; Baumgartner, 1997; Davis et al., 1998) and is reported from tropical and warm temperate oceanic waters worldwide, in deep oceanic and continental slope waters (Jefferson et al., 1993). The distribution of the Risso's dolphin is similar to that of its primary squid prey species (Baumgartner, 1997; Kruse et al., 1999). The first record of Risso's dolphin in the Gulf was described by Paul (1968); there are 15 additional records of Risso's dolphin stranding sites for the northern Gulf, concentrated in Texas and Florida (D. K. Odell, Southeast U.S. Marine Mammal Stranding Network, Orlando, FL, 1999, pers. comm.). Details of the first recorded stranding of a Risso's dolphin in Louisiana are provided here. This is likely not the first Risso's dolphin stranding. Marine mammal strandings along the Louisiana coastline may not be reported because of wide areas of marsh that make finding a carcass in these remote locations (even by boat) inherently difficult, less vigilance by the stranding network because of the small numbers of volunteers, and lack of public awareness that marine mammal carcasses need to be reported.

On 26 May 1998, a moderately large male delphinid, with a total length of 296 cm, was found stranded at Pass a Loutre in Venice, LA (29°46.15′N, 93°29.18′W). The carcass was in an advanced stage of decomposition. The stranded animal (LA062-98 = SE13549) was identified as a Risso's dolphin on the basis of skull features presented by Jefferson et al. (1993); the head was blunt, with a broad rostrum, and dentition was reduced to no upper teeth and four tooth alveoli on each of the lower left and lower right mandibles, near the tip of the rostrum (Fig. 1). The two teeth that survived transport of the animal were conical and relatively large. The animal's stomach was empty. The skull and both pectoral flippers were collected and are archived at the Louisiana State University (L.S.U.) Museum of Natural Science as LSUMZ36160 (M. Hafner, L.S.U. Museum of Natural Science, 1999, pers. comm.).

Thirty-four skull measurements (Table 1) were made in the present study; 33 were used by Perrin (1975) in his study of *Stenella* sp. and one by Walker (1981) in his study of bottlenose dolphins (*Tursiops* spp.). Measurements were made with Fowler Ultra-Cal Mark III 150-mm digital calipers (to the nearest 0.01 mm) or Haglof Mantax 80-cm aluminum slide calipers (to the nearest 0.5 mm), depending upon size.

Age was estimated with stained, decalcified sections. Teeth were prepared by standard protocols developed by Hohn (1980) and Myrick et al. (1983). These protocols were modified later by K. Robertson (National Marine Fisheries Service, Southwest Fisheries Science Center, La Jolla, CA, 1998, pers. comm.) and subsequently by one of us (JT) because of differences in available equipment. Growth layer groups (GLGs) were counted in dentine of the teeth, from the neonatal line toward the pulp cavity. Teeth were aged 10 times and the average is reported. The animal was determined to have 22 GLGs in the teeth. Calibration of GLGs in the Risso's dolphin has not been done, but GLG deposition in Risso's dolphins is assumed to follow the established, layer-per-year, delphinid pattern (Kruse et al., 1999). Little documentation is available on the longevity of Risso's dolphin; the oldest Risso's dolphin (on the basis of tooth age estimation) was 30+ yr (Kruse et al., 1999).

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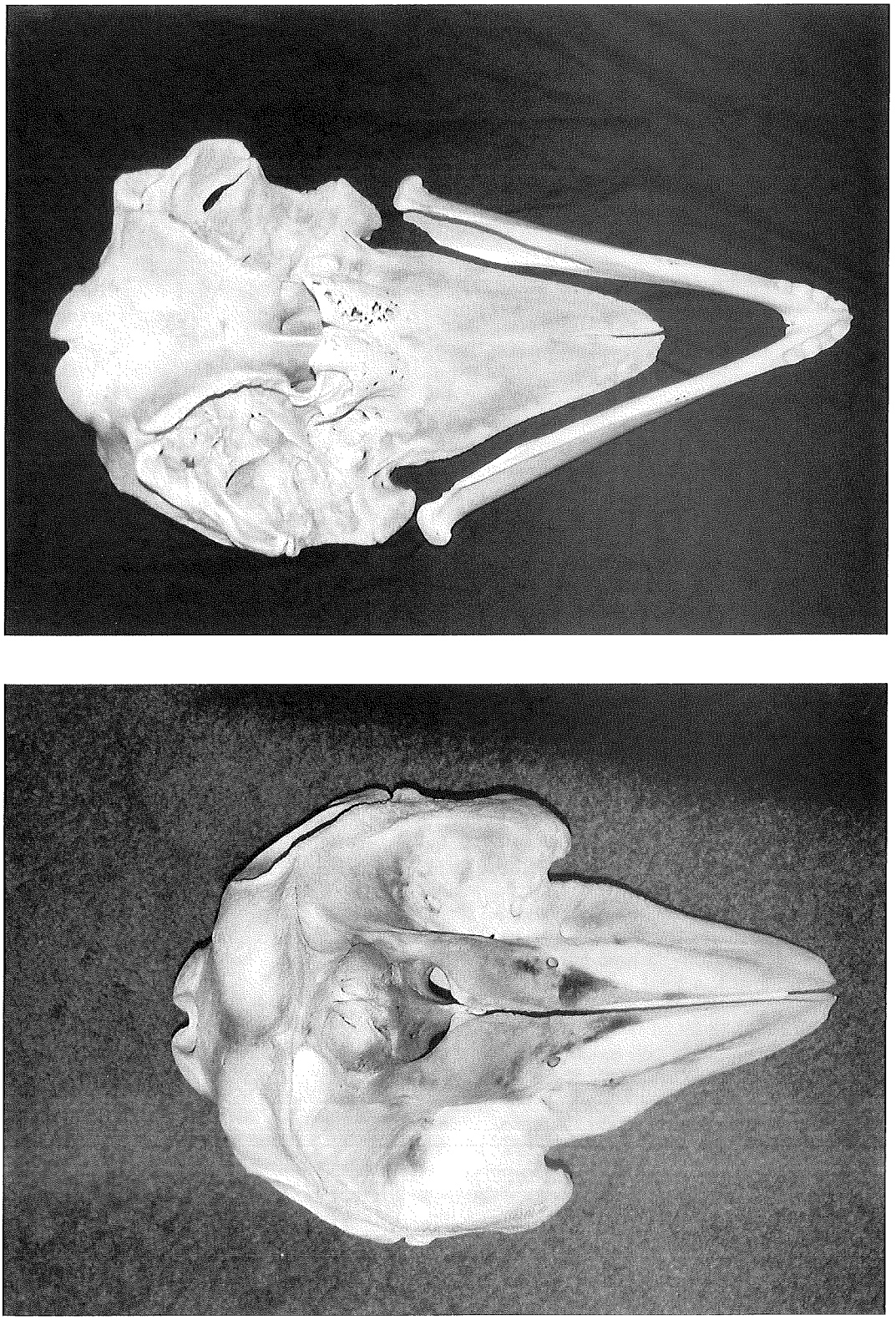

Fig. 1. Male Risso's dolphin (296 cm) skull (LSUMZ 36160). Ventral view of skull and dorsal view of lower jaw (top) and dorsal view with right side toward bottom of page (bottom).

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TABLE 1. Selected skull measurements of Risso's dolphin (LA062-98). Measurements follow Perrin (1975) and Walker (1981) and are reported in millimeters except number of teeth.

Measurement	Value (mm)
Condylobasal length	503.5
Length of rostrum	254.4
Width of rostrum at base	206
Width of rostrum at 60 mm	178.5
Width of rostrum at midlength	125.7
Width of premaxillaries at midlength of rostrum	80.2
Width of rostrum at ¾ length	84.6
Distance from tip of rostrum to external nares	325.1
Distance from tip of rostrum to internal nares	308.9
Greatest preorbital width	307
Greatest postorbital width	315.1
Least supraorbital width	316
Greatest width of external nares	67.4
Greatest width across zygomatic process of squamosal	339.2
Greatest width at premaxillaries	117.9
Vertical external height of braincase	169.9
Internal length of braincase	156.3
Greatest length of left posttemporal fossa	137.9
Greatest width of left posttemporal fossa	83.4
Major diameter of left temporal fossa	63.2
Minor diameter of left temporal fossa	70.4
Projection of premaxillaries beyond maxillaries	9.43
Distance from nasals to supraorbital crest	55.3
Length of left orbit	76.5
Length of antorbital process of left lacrimal	60.7
Greatest width of internal nares	104.7
Greatest width of left pterygoid	108.8
Number of teeth—lower left	4
Number of teeth—lower right	4
Length of lower left tooth row	78.2
Greatest length of left ramus	403.1
Greatest height of left ramus	108
Length of mandibular fossa	180.9
Mandibular condyle width	44.3

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