The "Living Fossil" Peccary, *Catagonus wagneri* (Tayassuidae) and Its Climatic Significance during the Pleistocene and Holocene

Germán M. Gasparini, Esteban Soibelzon, Eduardo P. Tonni, and Martín Ubilla

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The Tayassuidae first expanded their range into North America from Eurasia and then extended into South America during the "Great American Biotic Interchange," becoming one of the first North American mammalian immigrants. Three genera are recognized in South America: *Platygonus* Le Conte (middle Pliocene to early Pleistocene), *Catagonus* Ameghino (late Pliocene? early Pleistocene to Recent), and *Tayassu* Fischer (middle Pleistocene to Recent; see Gasparini et al. 2009, 2010).

Catagonus wagneri was assigned to the genus *Catagonus* Ameghino by Wetzel et al. (1975); it is commonly known as Chacoan peccary, *taguá* or *chancho quimilero*. It has the most restricted geographical distribution among extant Tayassuidae and inhabits semiarid thorny forests of Dry Chaco in western Paraguay, southeastern Bolivia and northern Argentina (Mayer and Wetzel 1986; Gasparini et al. 2006; see Figure 1). The genus *Catagonus* was known from early- to middle-Pleistocene deposits in Buenos Aires City, Argentina (the extinct species *C. metropolitanus*). The species *C. wagneri* was reported by Rusconi (1930) in archaeological sites from Santiago del Estero Province, Argentina (ca. 1000 RCYBP; see Tonni 2006); it was believed to be extinct until it was described by Wetzel et al. (1975). Recently a partial skull from late Pleistocene of Uruguay (Cuareim River, Artigas Department) was assigned to *C. wagneri* (Gasparini et al. 2009, 2010). This material comes from the Sopas Formation (>45,000 RCYBP; 43,500 ± 3600 and 58,300 ± 7400 CALYBP [TL dates]; see Ubilla 2004). This is the oldest fossil record of this species and shows that the species ranged out of its present distribution during late Pleistocene.

Chacoan peccary is more like the extinct *Platygonus* than the other living peccaries. Certain anatomical features of *C. wagneri* are linked with a cursorial life in open and arid or semiarid environments (e.g., elongated limbs, a reduction of the lateral digits, and a great development of the sinuses and nasal chambers; see Wetzel 1977).

Germán M. Gasparini, Esteban Soibelzon, and Eduardo P. Tonni, División Paleontología Vertebrados, Museo de La Plata, Facultad de Ciencias Naturales y Museo, UNLP, Paseo del Bosque s/n, B1900FWA La Plata, Argentina; emails: chinogasparini@yahoo.com.ar esoibelzon@fcnym.unlp.edu.ar eptonni@fcnym.unlp.edu.ar

Martín Ubilla, Facultad de Ciencias, Iguá 4225, 11400, Montevideo, Uruguay; email: ubilla@fcien.edu.uy

At present, *C. wagneri* inhabits areas of rainfall between 800 mm (Mariscal Estigarribia, Paraguay) and 80 mm (Las Lomitas, Argentina)—concentrated in summer months—and high temperatures (mean annual temperature over 24°C). During the late Pleistocene (Uruguay) and the late Holocene (Argentina), *C. wagneri* is recorded in association with mammals that also indicate arid or semiarid conditions (e.g., *Lama guanicoe*, *Myrmecophaga tridactyla*) linked to chacoan vegetation.

During the arid phases of the Pleistocene and Holocene, *C. wagneri* extended its geographic range; during the mainly humid phases—similar to the present ones—it has survived in a scrub-thorn refugium.

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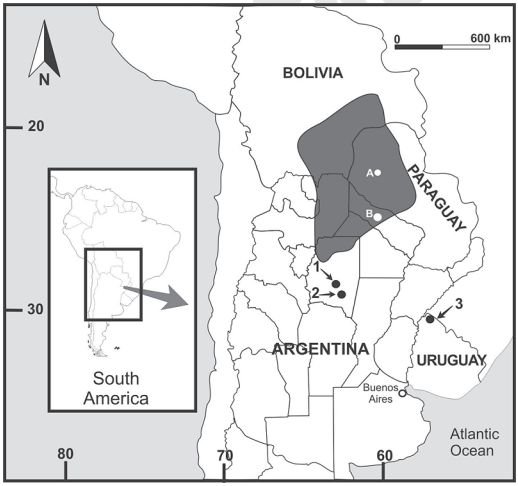

Figure 1. Archaeological and paleontological sites where fossil remains of *C. wagneri* were found, and current range: **1,** Llajta Maüca archaeological site, 15 km northwest of Melero, Santiago del Estero Province; **2,** Tulip-Loman archaeological site, near Icano, Santiago del Estero Province, 45km south of Llajta Maüca; **3,** paleontological site rio Cuareim, Artigas Department, Uruguay; **A,** Mariscal Estigarribia, Boquerón Department, Paraguay; **B,** Las Lomitas, Formosa Province, Argentina. Gray area indicates current range of *C. wagneri*.