



Neotypification of *Larus cachinnans* Pallas, 1811 (Aves: Laridae)

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Introduction

The systematics of large white-headed gulls of the *Larus fuscus-argentatus* complex has long been problematic (e.g. Bruch 1853, 1855; Dresser 1873; Hartert 1921; Dwight 1925; Štegman 1934; Geyr von Schweppenburg 1938; Voous 1959) and is still in flux (e.g. Wink *et al.* 1994; Klein & Buchheim 1997; Panov & Monzиков 1999; de Knijff *et al.* 2001; Yésou 2002; Crochet *et al.* 2002, 2003; Liebers *et al.* 2004; Gay *et al.* 2007; Sternkopf *et al.* 2010). The earliest name for any Asian form is *Larus cachinnans*, proposed by Pallas (1811b: 318). This name is now generally applied to large white-headed gulls breeding in the Caspian region, but, as we show below, there is nothing in Pallas's (1811b) description of the taxon that unambiguously links it with southern Palearctic forms, even less with any particular one of them (see below for the type series).

Peter Simon Pallas (1741–1811) was a German naturalist in the service of Russian tzars, who travelled widely through the southern Russian Empire. His travels resulted in the discovery of numerous new taxa of animals, including birds (Pallas 1769a,b, 1770, 1771, 1773, 1776), but not in the recognition of a new large white-headed gull. Only later, when Pallas (1811a,b) monographed the vertebrate fauna of Russia, did he recognize *Larus cachinnans* as a species. [For the dating of the latter work see ICZN (1954), Svetovidov (1976) and Dickinson (2011).]

As previously observed by Blasius (1858), Pallas (1811b: 318–320) used his *Larus cachinnans* in a very broad sense, in much the same way as Scandinavian authors used their *Larus argentatus* (Pontoppidan 1763: 622) or *Larus naevius* (Linnaeus 1766: 225). Pallas (1811b: 318) referred to several earlier authors (see below), but did not mention in the synonymy of his *cachinnans* any name available for the purposes of zoological nomenclature (ICZN 1999), which excludes the possibility that he created *cachinnans* as a new replacement name. Dresser (1873) suggested that *cachinnans* is indeterminate, but most earlier authors applied the name to some or all southern Palearctic white-headed gulls breeding from south-western Europe to Kamchatka (e.g. Keyserling & Blasius 1840: xcvi; Dresser 1903: 833; Hartert 1921: 1725; Dwight 1925: 202).

Dwight (1925: 202) seems to have been the first to restrict the type locality of *cachinnans* to the "Caspian Sea", and the Caspian Sea has been cited as the type locality by many subsequent authors (e.g. Buturlin 1934: 157; Dement'ev 1951: 472; Vaurie 1965: 471; Stepanân 1990: 222, 2003: 249). Independently, Štegman (1934: 376) restricted the type locality to "die östlichen Küsten des Kaspischen Meeres und Turkestan" ("eastern coasts of the Caspian Sea and Turkestan"). Restricting type localities was an allowed means of specifying the meaning of broadly defined animal taxa until the Third Edition of the International Code of Zoological Nomenclature (ICZN 1985), but the Fourth Edition of this Code (ICZN 1999) annulled such restrictions. The meaning of *Larus cachinnans* thus can be established only via lectotypification or neotypification. [See Olson and Banks (2007) for an analogous case.]

We transliterated toponyms and names of authors originally written in non-Latin scripts into Latin names according to currently valid rules (see Mlíkovský 2010a; Pedersen 2012). Nomenclatural issues follow the International Code of Zoological Nomenclature (ICZN 1999). For current bird taxonomy, we follow Dickinson (2003).

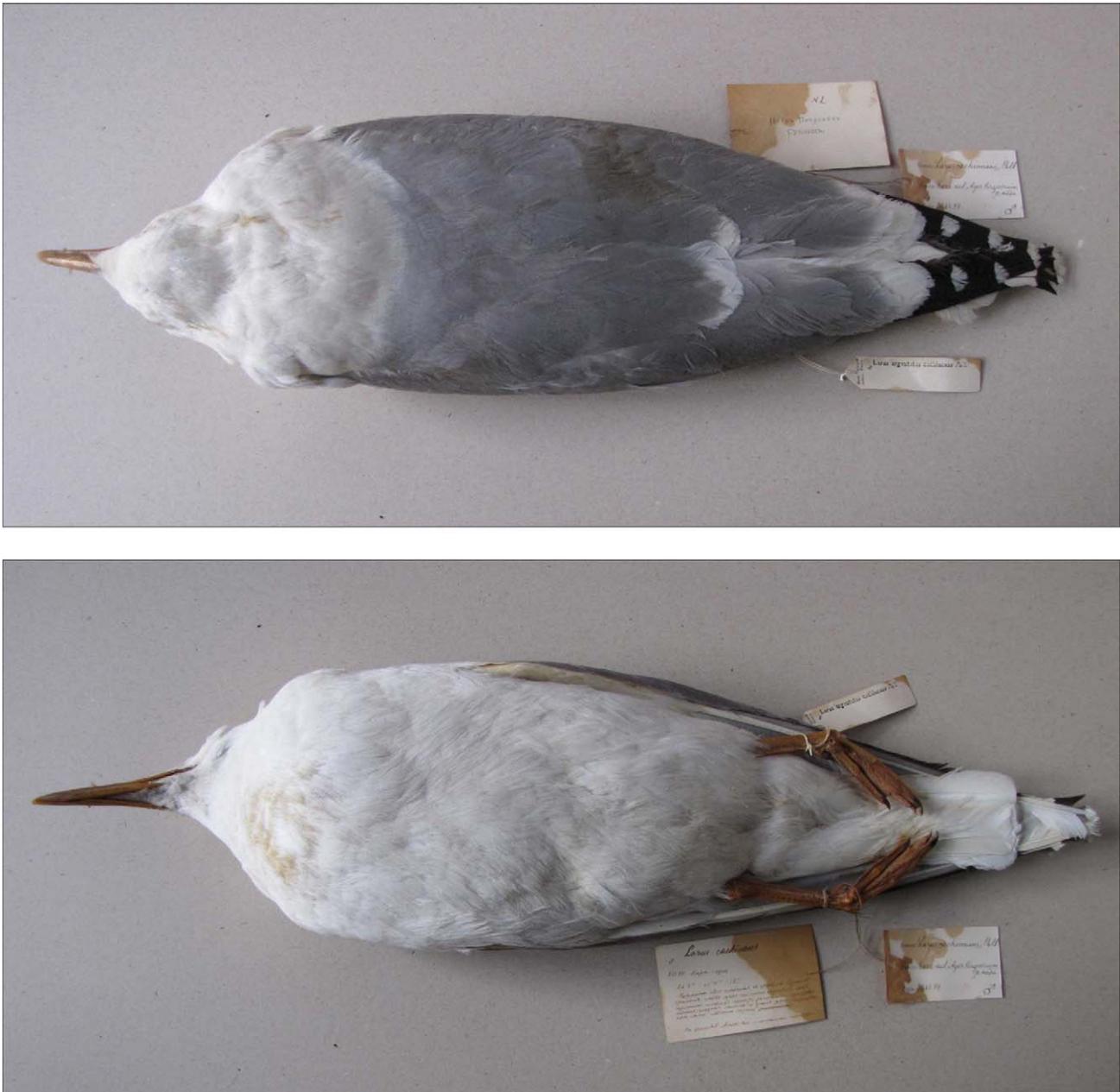


FIGURE 1. Neotype of *Larus cachinnans* Pallas, 1811b; ZIN 17184. Dorsal and ventral views. Photos: Vladimir M. Loskot, 7 June 2012.

The type series of *Larus cachinnans*

Pallas (1811b) did not mention particular specimens, but he had at his disposal large bird collections at the *Kunstammer* (now Zoological Institute of the Russian Academy of Sciences; ZIN) during the preparation of his review of the Russian avifauna. At that time the ZIN collections included specimens from all parts of the Russian Empire, including Alaska. He vaguely described the range of *cachinnans* as follows (Pallas 1811b: 318): "Abundat in mari Caspio; majoribusque fluminibus Rossiae illuc et ad mare glaciale tendentibus, nec non in magnis Sibiriae lacubus, praesertim Baicale." ("It is abundant on the Caspian Sea; on large Russian rivers flowing into northern seas, and also on large Siberian lakes, particularly Baikal".) Vernacular names listed by Pallas (1811b: 318) indicate that he also included gulls from Kamchatka and the Kurile Islands in *cachinnans*. Furthermore, scientific synonyms listed by Pallas (1811b: 318) indicate that he also included in *cachinnans* gulls from the Balkans ("*Larus cinereus maximus*" of "Marsil. Danub. V. pl. 40" = Marsigli 1726: 84, pl. 40), Denmark ("*Larus marinus*" of "Brünnich orn. bor. n 145" = Brünnich 1764: 43), France ("*Larus cinereus*" of

"Brisson. orn. VI. p. 160. sp. 2. tab. 14" = Brisson 1760: 160; and "*Larus varius*" of the same author "p. 167. n. 5. tab. 15" = Brisson 1760: 167), and the British Isles ("Herring Gull" of "Penn. Zool. brit. (quart) II. n. 246, n. 88", "Zool. Arct. II. p. 527" and "Latham . av. VI. p. 372. n. 3" = Pennant 1776: 246, pl. 88; Pennant 1785: 527; and Latham 1785: 372). Pallas (1811b: 318) also listed other forms as a variety (*Larus glaucus* of Brünnich 1764: 44) or with a question mark (*Larus consul* of Martens 1675: 60), so these are excluded from the type series (Art. 72.4.1 of the Code). This means that Pallas (1811b) applied his *cachinnans* to all large white-headed, gray-backed gulls of the Palearctic. These are currently considered to form a complex of several species and subspecies (e.g. Olsen & Larsson 2004), of which *cachinnans* is now virtually always considered a separate species from *argentatus*. The taxonomy of this group is among the most contentious in ornithology.

No gull specimens available to Pallas at the ZIN survived. Also, no gulls were found among Pallas's specimens that survived in the museums of Berlin, Leipzig and Leyden (Stresemann 1948; van den Hoek Ostende *et al.* 1997). Thus, the taxonomic meaning of Pallas's (1811b) *Larus cachinnans* can be fixed only by neotypification (ICZN 1999, Art. 84). We consider it important to fix a neotype, because *cachinnans* is currently in widespread use and the application of this name to the Caspian form is not supported by the Code. Without neotypification, *Larus cachinnans* Pallas would be indeterminate and zoological nomenclature could be destabilized by its replacement by a junior synonym.

Neotype

In selecting the neotype we considered, first, that *cachinnans* has been traditionally applied to gull populations inhabiting an area from the Black Sea in the west to the Kazakh steppes in the east (e.g. Saunders 1896: 266; Ūdin & Firsova 2002: 253), and, secondly, that Pallas's Latin name *cachinnans* is a Latin translation of the Russian "хохотун" ("hohotun"), an onomatopoeic vernacular name used for this gull by Russians on the Caspian Sea (Pallas 1811b: 318; where spelled "Chochotun"). Thirdly, these gulls are common breeders in the vast delta of the Volga River (Rusanov 2011) and in the lower Ural River valley, which Pallas repeatedly visited in his travels (Bogdanov 1876; Garanin 2011). Hence, and also taking into account the quality of available skins, we designate herein the following high-quality specimen collected from near the northern Caspian region where Pallas observed these gulls as the neotype of *Larus cachinnans* Pallas, 1811b:

Neotype (Figs. 1–4): Zoological Institute of the Russian Academy of Sciences, St.-Petersburg, Russia, ZIN 17184, ♂ ad., collected by Petr Petrovič Suškin (1868–1928), on 8 June 1894 (Old Style = 20 June 1894 New Style; see Mlíkovský 2010b) at Lake Kara-kul', a freshwater lake lying between upper Or' River (left tributary of the Ural River) and upper Emba River, on the western slopes of the Mugodzhy Mountains.

The label of this male specimen of *Larus cachinnans* bears No.2 in the Suškin collection. Suškin (1908: 100–101) listed it under this number in the table of measurements and in the list of collected specimens in his monograph on the birds of the Middle Kirghiz steppe. An original label includes the following measurements taken from the fresh specimen: body length 26"5" [= 67 cm], wing span 61"4" [= 155.7 cm] and middle toe length 2"2" [= 5.6 cm]; the following color description: "Iris grey-sandy with rough brown spots, bill bright lemon ochre, washed crimson spot near the tip of the lower jaw; eye ring and mouth corner cinnabar, legs light ochre lemon"; and the following notes on stomach contents: "Acridiidae and small bird remnants" (translated by VML).

Type locality: Kazakhstan, Aktyubinskaya Oblast', about 16 km SE of the settlement of Rodniki, Lake Kara-kul'; 49° 04' N, 58° 33' E, 290 m a.s.l.

Conclusion

By designating the neotype of *Larus cachinnans* Pallas, 1811b, we fixed this well-known name in the current sense.

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♂ *Larus cachinnans*
8.VI.94. Кара-куев
26"5" - 61"4" - (2")
Палухина стро-песочная с грубыми буровато-красными, китово ярко лимонно-оранжевой, а над верхней частью черной размытое пунцовое пятно; маховое перо и углы рта лимонно-красные, лапы светло-оранжево-лимонные
Во фресудет *Ardeididae* и *семейств птиц*

№2
Петръ. Петровичъ
Сушкинъ.

FIGURE 2. Neotype of *Larus cachinnans* Pallas, 1811b; ZIN 17184. Recto and verso of Suškin's field-label; see text for explanation. Photos: Vladimir M. Loskot, 7 June 2012.

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