

Lectotypification of *Larus smithsonianus* Coues, 1862 (Aves: Laridae)

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Abstract.—The gull *Larus smithsonianus* Coues, 1862 was based on specimens in the collections of the Smithsonian Institution, but no type material has been identified and the type locality was never restricted beyond the eastern and western coasts of North America. We here designate USNM 18216 as lectotype, and the restricted type locality thus becomes Henley Harbour, Strait of Belle Isle, Newfoundland Labrador, Canada. It is proposed that *Larus smithsonianus* be treated as specifically distinct from the Old World Herring Gull *Larus argentatus* and take the English name Smithsonian Gull.

Taxonomy of the so-called white-headed gull complex involves some of the more persistent problems in avian systematics. Molecular studies are beginning to reveal more complicated evolutionary patterns than were previously discerned through studies of morphology, behavior, hybridization, etc. (Crochet et al. 2002, 2003; Liebers et al. 2004; Pons et al. 2005), and numerous taxa previously recognized at the subspecies level have now been suggested to be full species.

Central to the problem is the complex of large gulls that includes the Herring Gull *Larus argentatus* Pontopiddan, 1763, a familiar species along European shores and throughout most of North America. *Larus argentatus* was described from Europe, with a restricted type locality of Christiansø, Denmark. The North American birds were also known under that name until segregated by Coues (1862) as *Larus smithsonianus*. Coues (1873) himself soon demoted his new taxon to a “variety” of *L. argentatus*, and it has been known as a variety or subspecies of *L. argentatus* ever since (Ridgway 1919; American Ornithologists’ Union 1886,

1957; Pierotti & Good 1994). Recent research suggests, however, that species status for *L. smithsonianus* needs to be reconsidered (Crochet et al. 2002, 2003; Liebers et al. 2004; Pons et al. 2005). Furthermore, it is also possible that American birds may be divisible into more than one subspecies. Banks and M. R. Browning (pers. obs.) noted differences in mantle color between eastern Canadian and interior populations. Jonsson & Mactavish (2001) documented differences in wing tip patterning between populations at Niagara Falls and Newfoundland. Therefore, it becomes essential to tie the name *Larus smithsonianus* to a particular population through designation of a lectotype in the event that the species may be divisible into more than one taxonomic unit.

Surprisingly, no type specimens of *L. smithsonianus* have ever been identified, and the type locality has never been restricted, having always been quoted with Coues’ (1862:297) “habitat” designation of “Eastern and Western coasts of North America.” As is clear from his title, Coues (1862) based his revision of North American Laridae upon specimens in the Smithsonian Institution. Therefore, tech-

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nically speaking, all North American specimens of *Larus* “*argentatus*” that were in the Smithsonian collections up to 1862 are possible syntypes of *L. smithsonianus*. However, regarding the distinguishing features of his new taxon Coues (1862:298) stated that “in fully adult birds *these characters are constant*” (Coues’ emphasis). Therefore, type status might best be reserved for fully adult birds in Coues’ series, even though dark-plumaged immature birds are more easily distinguished from *L. argentatus*.

Ridgway (1919:617) considered *Larus smithsonianus* to be synonymous with *L. argentatus*, made no attempt to typify the taxon, and only repeated Coues’ “habitat” statement followed by “no type locality designated.” Dwight (1925:194), in his classic study of systematics and plumages of gulls, recognized the validity of *L. smithsonianus* as a subspecies of *L. argentatus* and considered that Coues gave “a correct diagnosis and an able discussion of the characters,” but made no reference to type material. After C. E. Hellmayr took over the *Catalogue of Birds of the Americas*, he usually attempted to provide information on the whereabouts of the types of each species or subspecies treated, but for *Larus smithsonianus* it was merely stated that there was “no type or type locality indicated” (Hellmayr & Conover 1948: 263). Deignan (1961), who was normally assiduous in segregating and listing all syntypes at the Smithsonian (=USNM) no matter how large the series, also made no attempt to typify *L. smithsonianus*.

Coues (1862:299–300) did specifically mention certain specimens that can be unequivocally stated to have been examined in preparation of the description of *L. smithsonianus*: “In the collection of the United States Exploring Expedition.... a Gull labelled as having been obtained in Oregon” and “very recently specimens received from J. Hepburn, Esq., of San

Francisco, collected in that immediate vicinity”; also, “specimens in the collections of Messrs. Kennicott and Ross from localities whose general avi-fauna [sic] is rather of a western than of an eastern type.” Coues’ text makes it clear that he conceived of his new name as referring to birds of eastern North America, to which he then referred the western populations, so it would be preferable to restrict the type locality to somewhere in eastern North America.

In dedicating his new species to the Smithsonian Institution, Coues (1862: 300) mentions that the Institution’s material was “unequaled in richness and extent.” Unfortunately, the richness and extent of what was available to Coues has since diminished greatly, as many of the specimens he had to have seen were exchanged, given away, or otherwise can no longer be traced. Among these are two collected by Coues himself on a government expedition to Labrador in 1860 (Coues 1861) when he was but eighteen years old (Todd 1963:9). These were a male (USNM 18218) taken 3 July at “Sloop Harbour” (=Gore Island, Todd 1963:809) and a female (USNM 18219) taken 23 July at “Groswater Bay” (=Hamilton Inlet, Todd 1963:792). According to the Smithsonian catalog, the first of these went to John Krider on 24 October 1860 and the second is annotated as probably also having gone to Krider, who was a Philadelphia taxidermist. If this catalog information is correct, those specimens appear to have left the Smithsonian before Coues undertook his study.

Two of Coues’ Labrador specimens remain in the Smithsonian collections, but one of these (USNM 18217, Henley Harbour, 29 Aug) is a juvenile. The other is an adult, and it is this specimen, known to have been seen by Coues, that is designated below as lectotype. We have been able to identify only five other specimens remaining in the Smithsonian

Table I.—Possible paralectotypes of *Larus smithsonianus* Coues, 1862, that still exist in the collections of the Divisions of Birds, National Museum of Natural History, Smithsonian Institution (USNM). The only basis for type status is that they are adult specimens that were in the collection prior to the publication of Coues' (1862) study.

USNM number	Locality	Collector	Date cataloged
2770	No data		1846
12587	Oregon, U.S.A.	Exploring Expedition	19 July 1859
20149	Big Island, Great Slave Lake, Canada	J. Reid	4 Dec 1860
20151	Fort Resolution, Great Slave Lake, Canada	Kennicott	4 Dec 1860
20152	Big Island, Great Slave Lake, Canada	J. Reid	4 Dec 1860

collections as possible paralectotypes (Table 1).

Larus smithsonianus Coues, 1862

Lectotype.—USNM 18216, unsexed, adult, cataloged 6 October 1860. In addition to the Smithsonian tag it bears Coues' original label with "Exploration of the Coast of Labrador" printed in the upper left corner of the recto, "Jno. W. Dodge" in the upper right, and "Elliott Coues" in the lower right. The collector's number 219 appears in pen at the top, beneath which is 18216, also in pen. In pencil is written "Larus argentatus | Henley Harbour 31 Aug." On the verso, also in pencil, are some presumed measurements, some with obscure decimal points "25.5 5.9 16.5" and soft part notations: "Bill chrome yellow, spot vermilion, point white. Iris lemon yellow, eyelids chrome. Legs light flesh color." The specimen is now dirty with a heavy sooty stain on the throat and lighter stains on the forehead and underparts.

Restricted type locality.—Henley Harbour, Strait of Belle Isle, Newfoundland Labrador, Canada, 52 01'N, 55 50'W.

Measurements (mm) of lectotype.—Culmen 62.0, wing (chord) 428, tail 165, tarsus 72.0, middle toe with claw 66.4.

Paralectotypes.—See Table 1.

Remarks.—The lectotype conforms with Coues' characterization of the American birds as having a relatively small white spot on the outer primary and none on the next. The white apical tips of the

primaries mentioned by Coues are worn nearly away but distinct traces remain.

The oldest specimen among the possible paralectotypes, USNM 2770, was part of S. F. Baird's original collection but has no collection data, so that it is possible that it is not even a North American bird. The specimen label was annotated in 1949 with the identification *L. a. smithsonianus* by the mammalogist Charles O. Handley, Jr., and the wing pattern accords with that identification. Although the Exploring Expedition specimen from Oregon was specifically mentioned by Coues, the wings of that specimen are entirely in immature plumage and so lack any spotting on the primaries that Coues used to distinguish *L. smithsonianus*. The birds mentioned by Coues as having been taken by J. Hepburn at San Francisco apparently were never cataloged at the Smithsonian and are not now part of the USNM collection. There is a specimen collected by Hepburn in British Columbia, but it was not cataloged until 1876, so it can have no status as a type of *L. smithsonianus*. The Kennicott and Reid specimens listed were doubtless among those Coues attributed to Kennicott and Ross, as John Ross and Bernard Reid were collecting in the same area contemporaneously, although their inland localities might make the specimens ineligible as types if one were to adopt a strict interpretation of Coues' (1862:297) "habitat" as being the "Eastern and Western coasts of North America." Therefore, the

specimen we have designated as lectotype of *Larus smithsonianus* appears to be the only truly satisfactory specimen remaining in the Smithsonian collections that qualifies as a name-bearer of the species.

In a study of the mitochondrial DNA control region and cytochrome-*b* haplotypes of the large white-headed gull complex, Crochet et al. (2002) found that one haplotype was found only in North American birds, from both Manitoba and Quebec. These representatives of *L. smithsonianus* belonged to a clade of predominately North American species including *L. californicus*, *L. hyperboreus*, *L. thayeri*, and *L. glaucoides*, quite distinct from the European clade including *L. argentatus*, *L. fuscus*, and *L. michahellis*; the two clades are not reciprocally monophyletic groups. Using a nested-clade analysis of the HVR-I segment and the entire cytochrome-*b* gene of mtDNA, Liebers et al. (2004) determined that the ends of the supposed Herring Gull ring species, *L. smithsonianus* and *L. argentatus*, are not each other's closest relatives, and that the two clades had different evolutionary histories. Pons et al. (2005) used these data to construct a phylogeny of the Laridae in which the species *L. argentatus* and *L. smithsonianus* are treated as distinct species. Crochet et al. (2002) cited data from Frings et al. (1958) showing that European Herring Gulls did not respond to recorded calls of American Herring Gulls, suggesting significant acoustical differences.

Those who have recognized *Larus smithsonianus* as a species distinct from *L. argentatus* have either used only scientific names (e.g., Crochet et al. 2003) or have used "American gull" for the former as a geographic identifier rather than as a proper English name (Pons et al. 2005:695). Olsen & Larsson (2003), on the other hand, clearly applied the English name "American Herring Gull" to *L. smithsonianus* while retaining the unmodified "Herring Gull" for *L.*

argentatus. As noted by Pittaway (2005), without some modifier such as European or Eurasian Herring Gull, it would be uncertain whether a writer using simply "Herring Gull" meant only *L. argentatus* or both Old and New World gulls. But it would now appear to be misleading to call the American bird a herring gull because molecular studies indicate that *L. smithsonianus* is probably more closely related to other species of white-headed gulls than to *L. argentatus*. Therefore, we recommend recognizing the American bird as a full species, *Larus smithsonianus*, and we propose that the English name should be Smithsonian Gull.

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