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Type specimens and type localities of birds (Aves) collected during Friedrich Heinrich von Kittlitz's circumnavigation in 1826-1829. Part 1. Specimens in the collections of the Zoological Institute of the Russian Academy of Sciences, St.-Petersburg, Russia[1]

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Abstract. Friedrich Heinrich von Kittlitz's circumnavigation of 1826-1829 resulted in a collection of over 800 bird specimens, on which at least 61 new bird species were based by Kittlitz and other researchers. In this paper we describe types of 57 nominal species deposited in the collections of the Zoological Institute of the Russian Academy of Sciences. Seven nomina nuda created by Kittlitz are also listed. Nomenclatural issues are discussed and lectotypes for *Calornis kittlitzi* Finsch & Hartlaub, 1867, *Lamprothornis opaca* Kittlitz, 1833b, and *Motacilla lugens* Kittlitz, 1833b are designated.
Key words. Historical ornithology, systematics, Lütke Expedition, circumnavigation.

INTRODUCTION

Nikolaj I (1796-1855), tzar of Russia, decided in the mid-1820s to send a naval expedition aimed at exploring islands in northern Pacific Ocean and trying to find passage between Asia and North America (Gnučeva 1940, Alekseev 1970). This expedition, headed by Capt. Friedrich Benjamin von Lütke (1797-1882; in Russian: Fedor Petrovič Litke) ran from 1826-1829 (see below for its itinerary). Lütke himself was responsible for geophysical and hydrographic studies. Other naturalists of the expedition included Franz Karl Mertens (1764-1831), responsible for botany and invertebrates, Alexander Postels (1801-1871), responsible for geology, and Friedrich Heinrich von Kittlitz (1799-1874), responsible for vertebrates.

The expedition returned to St. Petersburg with rich natural history collections, which included over 800 specimens of birds (see below for details). Subsequently, Kittlitz and

1 urn:lsid:zoobank.org:pub:ED47CB55-DEC3-4AD5-AAC0-1F94EA4DAEF7

other ornithologists named at least 61 new bird species on the basis of this material. The aim of this paper is to specify type series and type localities of these nominal species and to locate existing type specimens. This part of the work described specimens deposited in the collections of the Zoological Institute of the Russian Academy of Sciences in St. Petersburg, Russia. For specimens in other collections see Mlíkovský (2016).

The systematic list is arranged systematically following traditional classification of birds (e.g. Vaurie 1959, 1965, Stepanân 2003, Koblik et al. 2006, Koblik & Arhipov 2014). Within families, the taxa are arranged alphabetically according to the original binomen. Current nomenclature and taxonomy of the genera, species and subspecies follows Anonymous (2013, 2014), althouth this does not always express our opinion.

Most dates in works published before 1919 are in Julian calendar (Old Style; OS), which was the official calendar in the Russian Empire until 1918. Thereafter, the Gregorian calendar (New Style; NS) started to be used. The dates are given as originally published; in addition, the OS dates are recalculated to NS dates (see Mlíkovský 2010b for details).

The Cyrillic script is transliterated using the official ISO 9:1995 standards (see e.g. Mlíkovský 2010a).

Currently valid registration numbers (prefixed "ZIN") are given for all specimens. In addition, early registration numbers (prefixed "MZALCP"), which were in use in the ZIN (then: Museum Zoologicum Academiae Litterarum Caesareae Petropolitensis) in the 19th and early 20th centuries, were listed for all specimens which were registered in the MZALCP system.

All photos were made by Vladimir Loskot and Pavel Kiâško on 5 February 2016. The photos are not shown to scale.

Museum acronyms are as follows:

AMNH	American Museum of Natural History, New York, USA
MIZ	Muzeum i Instytut Zoologii, Polska akademia nauk [Museum and Institute of Zoology, Polish Academy of Sciences], Warszawa [Warsaw], Poland
MNHN	Muséum National d'Histoire Naturelle, Paris, France
MZALCP	Museum Zoologicae Academiae Litterarum Caesareae Petropolitanae, St.Peterburg, Russia
NHMUK	Natural History Museum, Tring, United Kingdom
NHMW	Naturhistorisches Museum, Wien [Vienna], Austria
NMP	Národní muzeum [National Museum], Praha [Prague], Czechia
RMNH	Naturalis (formerly Rijksmuseum van Natuurlijke Historie), Leyden, The Netherlands
SMF	Senckenbergmuseum, Frankfurt am Main, Germany
ZIN	Zoologičeskij Institut, Rossijskaâ akademiâ nauk [Zoological Institute, Russian Academy of Sciences], Sankt-Peterburg [St. Petersburg], Russia
ZMB	Museum für Naturkunde, Leibniz-Institute for Research on Evolution and Biodiversity at the Humboldt University Berlin, Germany.

FRIEDRICH HEINRICH VON KITTLITZ

Friedrich Heinrich von Kittlitz (1799-1874) was a German naturalist, painter and philosopher. He was born on 16 February 1799 in Breslau, Silesia (now: Wrocław, Poland). At a young age he entered military service and participated in Napoleonian wars in 1813-1815, serving in the army until 1825. He was interested in ornithology and painting of birds since childhood (Moyat & Schuster 1906), but did not publish ornithological papers at this time.

Kittlitz's ornithological carrier reached its heights in 1826-1829, when he participated as a naturalist and painter in a Russian exploratory expedition to the Pacific Ocean (for which see below). Kittlittz included his ornithological results in a few papers (Kittlitz 1829, 1830b, 1831, 1832a, 1833a, 1834, 1835, 1853, 1854), a book chapter (Kittlitz 1836a,b), an ornithological book (Kittlitz 1832b, 1833b,c), and an travelogue of his journey (Kittlitz 1858a,b). Most papers describing new species are accompanied with Kittlitz's own excellent colored drawings of birds.

After his return to Europe, Kittlitz was appointed in St. Petersburg as a curator responsible for animal collection he brought with him from the Expedition in 1829-1832 (Strecker 2010, 2011). Thereafter, he returned to St. Petersburg, where he, in April 1830, finished a catalogue of his collection of mammal and bird skins given by him to the ZIN[2] (Kittlitz 1830a)[3]. In October 1830 he went from St. Petersburg to Dorpat (now: Tartu, Estonia) (Elliott 1832: 416 ff.), continuing to Frankfurt (Main), Germany, where he arrived in November 1830 (Strecker 2010, 2011). In the same month Kittlitz contacted Eduard Rüppell (1794-1884) and subsequently joined him on his expedition to East Afrika (Niethammer 1971). Kittlitz went from Frankfurt (Main)[4], Germany, and Marseille, France (ca. 21 December 1830) to Alexandria, Egypt, where he arrived on or shortly before 26 February 1831. However, due to his prolonged illness, Kittlitz had to return home, leaving Alexandria for Europe on 9 April 1831 (Niethammer 1971). Thereafter, Kittlitz returned to St. Petersburg, where he read a lecture on the birds of Philippines on 23 November 1831 NS (Kittlitz 1833a: 1).

On a later date, probably sometime during 1832, Kittlitz left Russia and moved to Köln, Germany, where he lived in 1832-1843[5]. After leaving Köln, Kittlitz lived in Wiesbaden, Berlin and finally in Mainz, Germany, where he died on 10 April 1874. See also Steinbacher (1955) and Strecker (2010, 2011).

ITINERARY OF THE LÜTKE EXPEDITION

The Lütke Expedition with Kittlitz left St. Petersburg (port Kronštadt) on 1 September 1826[6] onboard the *Senâvin'*'[7]. He went towards South America via Portsmouth, United Kingdom (9 October – 14 November 1826) and Teneriffe, Canary Islands (14-15 Novem-

2 Actually, Kittlitz gave his collections to *Kunstkamera*, a precursor of several specialized museums, including the Zoological Museum of the Russian Academy of Sciences (ZIN), which was opened in 1832 (Ûr'ev 1982).

3 The list of birds includes Latin names of 314 "species" (some identified only at the generic level), each with a collection locality and number of specimens (overall 734). The original of this manuscript is now in possession of the archive of the Ornithological Department of the ZIN (Fig. 1).

4 It was probably on this occasion that Kittlitz donated part of his collections of mammals and birds to SMF. Philipp Jakob Cretzschmar (1786-1845), director of SMF, acknowledged the receipt of this donation in his 1831 report to the *Senckenbergische Naturforschende Gesellschaft* (Kramer 1967: 252).

5 Here, he started an ambitious ornithological work. He planned painting all bird species of the world, but only three issues with 36 plates were published entitled *Kupfertafeln zur Naturgeschichte der Vögel* (Kittlitz 1832, 1833b,c). Then the work was abandoned for unknown reasons.

6 New-style dates are used here. Works on the Lütke Expedition published in Russia used the Old Style calendar, but those published in France or Germany used New Style calendar.

7 The ship was named after Dmitrij Nikolaevič Senâvin" (1763-1831), Russian admiral. Its name is often transcribed in literature as *Seniavin*, *Senjavin*, *Senjawin* or *Senyavin*.

ber 1826). In South America, Kittlitz visited Rio-de-Janeiro, Brazil (8-25 January 1827), Concepción, Chile (16-20 March 1827) and Valparaíso, Chile (26 March – 15 April 1827). Heading northwards, Kittlitz visited Sitka, Alaska (24 June – 31 July 1827), island of Unalaska (Unalaschka), Aleutian Islands (22-31 August 1827) and Petropavlovsk-Kamčatskij, Kamchatka, Russia (25 September – 1 November 1827). From there, the expedition went southwards to tropical islands of the Pacific Ocean. Here, Kittlitz visited the island of Kosrae (Cusaie, Ualan), Caroline islands (8 December 1827 – 1 January 1828), island of Lukunor (Lugunor), Caroline Islands (4-8 February 1828), island of Guam (Guaham), Mariana Islands (1-20 March 1828) and Woleai (Uelai), Caroline Islands (4-9 April 1828), and returned via the island of Chichijima (Peel, "Bonin"), Ogasawara islands (2-15 May 1828) to Petropavlovsk-Kamčatskij (9 June – 11 November 1828)[8]. On 11 November 1828, Kittlitz started his homeway via Manila, island of Luzon, Philippines (13-30 January 1829), island of St. Helena (29 April – 10 May 1829), island of Fayal, Azores (29 June 1829), Le Hâvre, France (12 July – 2 August 1829) and Sheerness, United Kingdom (6-23 August 1829), reaching Kronštadt, the port of St. Petersburg, on 6 September 1829. For details see Lütke (1835a-e), Postels (1836a,b) and Kittlitz (1858a,b).

SPECIMENS

It has been generally assumed that Kittlitz gave all specimen he collected during the Lütke Expedition to the ZIN (e.g. Fuss 1831: 19). However, this is not true[9]. Kittlitz gave 734 specimens to the ZIN in 1830 (Fuss 1831: 26; for an original list see Kittlitz 1830a). In addition, Kittlitz gave 77 mammals (in two species) *and* birds (in 44 species) to the ZMF in 1830 (Kramer 1967: 252). Hartert (1891: vi) incorrectly said that all 77 specimens were birds, but listed only 66 such specimens in his catalogue (Steinbacher 1954: 301). Combining these data it is possible to conclude that Kittlitz donated to SMF 66-75 birds.

Johann Friedrich von Brandt, curator at the ZIN in 1831-1867, exchanged or sold some Kittlitz specimens to the RMNH in the 1830s and about 40 specimens to the NHMW in 1839. A SMF specimen came to the NHMUK in 1842 (Steinheimer 2002), another was exched to the AMNH and a few were lost in the World War II (Steinbacher 1954). The single NMP specimen came to Prague from the Feldegg Collection in the early 1850s, but it is unknown whether Felddegg obtained it from the ZIN or from the SMF (Mlíkovský 2012b). The single ZMB specimen was obtained from F. Eimbeck, a natural history dealer based at Braunschweig, who in turn obtained it from Schrader, preparator at the ZIN.

DATING KITTLITZ WORKS

Most of Kittlitz's works do not present problem with their datation. The following notes are necessary: Kittlitz's *Kupfertafeln* were issued in three parts, which appeared in 1832 (Part 1) and 1833 (Parts 2 and 3); see Loskot & Dickinson (2011).

8 During this visit, Kittlitz made two trips: (1) to Klûči (Klûčevskoe), ca. 400 km north of Petropavlovsk-Kamčatskij, and (2) to Âvinskoe, ca. 200 km southwest of Petropavlovsk-Kamčatskij.

9 A comparison of the numbers of specimens listed by Kittlitz (1830a) as given to the ZIN and overall number of specimens available in museum collections provide evidence that ZMF specimens were not included in Kittlitz's (1830a) list.

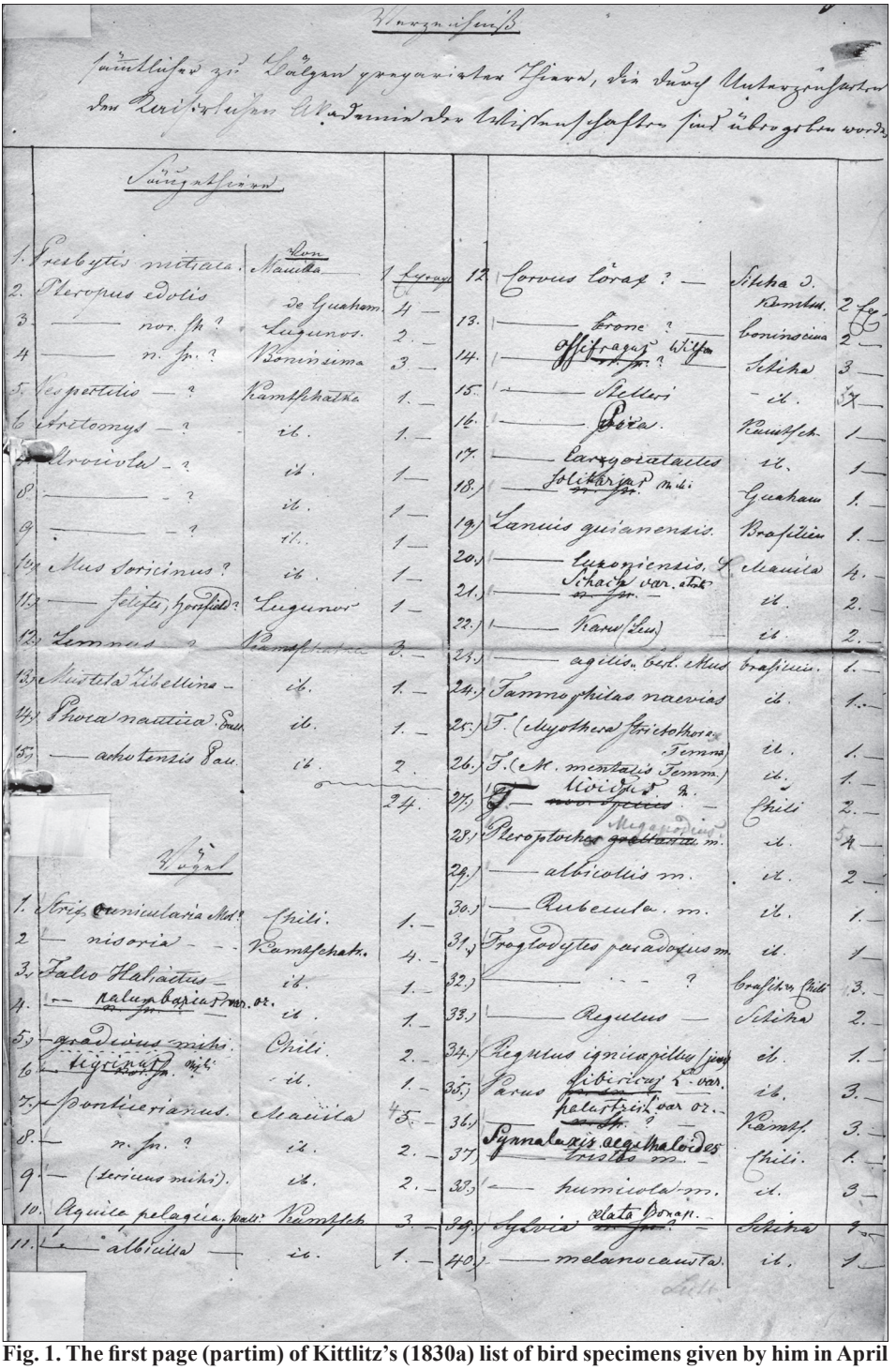

Fig. 1. The first page (partim) of Kittlitz's (1830a) list of bird specimens given by him in April 1830 to the ZIN.

Kittlitz's papers in the *Mémoires Présentés à l'Académie Impériale des Sciences de Saint-Pétersbourg par Divers Savans, et lus dans ses Assemblées* can be dated using dates given on wrappers of each issue. These dates were compiled by Dickinson & Daneliya (2011). However, these authors overlooked that these are the Old Style (Julian) dates. Thus, 12 days must be added to each date to get corresponding dates in the New Style (Gregorian) calendar (cf. Mlíkovský 2010b). In most cases this shift is within calendar year, but one Kittlitz's paper (here listed as "Kittlitz 1831") was published in the "December 1830" (Old Style date), i.e. during 13 December 1830 – 12 January 1831 of the New Style calendar. Thus, this paper was published on 12 January 1831 in the meaning of the Code (ICZN 1999).

SYSTEMATIC LIST

Tinamidae

Crypturus perdicarius Kittlitz

Crypturus perdicarius Kittlitz, 1830b: 193[10], pl. 12.
Now: *Nothoprocta perdicaria perdicaria* (Kittlitz, 1830b).

Holotype: ZIN 138114 (Kittlitz 1830a: No. 204), relaxed mount, unsexed, ad, collected on 30 March 1827 (Kittlitz 1858a: 150, younger label) or on 3 April 1827 (Chrostowski 1921: 18) in "Chili" (label) = at "Valparaiso" (younger labels; Kittlitz 1858a: 150, Chrostowski 1921: 18, 1922: 396).

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W.

Remarks: The bird was called on the old label at first "*Crypturus perdicarius*", then "*Tinamus perdicarius*". Kittlitz (1830a: No. 204) gave a single specimen to the ZIN and no specimen was found in SMF (Hartert 1891: 206). The ZIN specimen is thus the holotype of *perdicaria*.

Diomedeidae

Puffinus curilicus Brandt

Puffinus curilicus Brandt, 1843: 115.
Now: *Puffinus tenuirostris* (Temminck, 1836b).

Holotype: ZIN, uncatalogued (MZALCP 1821, Kittlitz 1830a: No. 274), mount, unsexed, "juv." (Kittlitz 1858a: 296) = ad. (Bianki 1913: 677), collected by Kittlitz on 31 August 1827 on sea just north off "Unalaschka" (Kittlitz 1858a: 296).

Type locality: Bering Sea, just north of Unalaska (island), Aleutian Islands, Alaska, USA; 53.67°N, 166.65°W.

Remarks: Kittlitz (1830a) gave a single specimen to the ZIN and none was found in SMF (Hartert 1891). Thus, the ZIN specimen is the holotype of *curilicus*.

The name *Puffinus curilicus* was first listed in the synonymy by Brandt (1843: 115). Later, Lichtenstein (1854: 100) used the name as valid for a taxon, thus validating it from Brandt (1843) under Art. 11.6.1 of the Code. Also, Kittlitz (1858a: 296) used the

10 This page is erroneously paginated as "192" in the journal.

name as valid for a taxon. Bianki (1913: 677) studied the holotype (his specimen No. 613) in the ZIN and identified it as *Puffinus tenuirostris* (Temminck).

Hydrobatidae

***Procellaria scapulata* Bonaparte**

Procellaria scapulata "Brandt" Bonaparte, 1857: 196.
Now: *Oceanodroma tristrami* Salvin, 1896.

Holotype: ZIN 4534 (Kittlitz 1830: No. 277), skin, unsexed, ad., collected by Kittlitz on 11-12 May 1828 OS = 23-24 May 1828 NS (see Lütke 1835a: 68 for the date) "unter 37° N. Br. und 211½° westl Länge von Greenwich" (Kittlitz 1858b: 191).

Type locality: Pacific Ocean west of Japan; ca. 37°N, 148.50°W.

Remarks: The name *Procellaria scapulata* was first listed in the synonymy by Bonaparte (1857: 196), who attributed the name to Brandt. Later, Kittlitz (1858b: 191) used the name as valid for a taxon, thus validating it from Bonaparte (1857) under Art. 11.6.1 of the Code.

Kittlitz (1830: No. 277) gave a single specimen to the ZIN and no specimens were found in the SMF (cf. Hartert 1891: 243-244). The ZIN specimen is thus the holotype of *scapulata*. Salvin (1896: 348), Godman (1907: 8) and Hartert (1920c: 1413) included *Thalassidroma scapulata* Kittlitz in the synonymy of *Oceanodroma leucorhoa* (Vieillot, 1818), but the holotype of *scapulata* is an *Oceanodroma tristrami* Salvin, 1896, as has been correctly recognized by Bianki (1913: 594) and confirmed by us.

Procellaria scapulata Bonaparte, 1857 antedates *Oceanodroma tristrami* Salvin (1896: 354), but *tristrami* should be retained as the valid name for the species until the case examined from the nomenclatural point of view.

Anatidae

***Anas chalcoptera* Kittlitz**

Anas chalcoptera Kittlitz, 1835: 471, pl. 5.
Now: *Speculanas specularis* (King, 1828).

Holotype: ZIN 55729 (Kittlitz 1830a: No. 302), relaxed mount, ad. F, collected on "6.IV.1827" (MZALCP label; not numbered) in "Chili" (label) = at "Valparaiso" (Kittlitz 1858a: 164, Chrostowski 1921: 20, 1922: 396).

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W.

Remarks: Kittlitz (1830a: No. 302) gave a single specimen to the ZIN and none was found in SMF (cf. Hartert 1891: 230). The ZIN specimen is thus the holotype of *chalcoptera*. *Anas chalcoptera* Kittlitz, 1835 was synonymized with *Speculanas specularis* (King, 1828) by Hartert (1891: 230, footnote).

Accipitridae

***Falco imperator* Kittlitz**

Falco imperator Kittlitz, 1832a: col. 1102. [Nomen nudum; no description or indication.]
Falco imperator Kittlitz, 1832b: 3. [Nomen nudum; no description or indication.]

Remarks: Kittlitz (1832a: col. 1102) listed and later figured (Kittlitz 1832b: pl. 2, fig. 1) a sea-eagle of the species *Haliaeetus pelagicus* (Pallas, 1811), remarking (Kittlitz 1832b: 3) that he called the bird *Falco imperator* before Pallas's name *pelagicus* was discovered. However, he did not use the name as valid and he called the species *Aquila pelagica* also in his unpublished list (Kittlitz 1830a: No. 10). *Falco imperator* Kittlitz was thus first published as a synonym of *Aquila pelagica* Pallas (1811: 343). It was not made available for the purposes of zoological nomenclature before 1961 and it is thus a nomen nudum (Art. 11.6 of the Code).

Hoek Ostende et al. (1997: 32-33) listed specimen RMNH 87224 (ad. M, collected by Kittlitz on an unknown date in Kamchatka) as a syntype of *Falco imperator*. This specimen has no type status, because *Falco imperator* Kittlitz is a nomen nudum.

Falconidae

***Falco sericeus* Kittlitz**

Falco sericeus Kittlitz, 1832b: 4, pl. 3, fig. 3; see also Kittlitz (1833a: 1, pl. 1).
Now: *Microhierax erythrogenys erythrogenys* (Vigors, 1831).

Syntype (Fig. 2): ZIN 77618 (Kittlitz 1830a: No. 9), relaxed mount, unsexed, ad, collected at "Manila" (label) during 13-30 January 1829 (date of collection inferred from Kittlitz's itinerary).

Type locality: Manila, Luzon (island), Philippines; 14.58°N, 120.97°E.

Remarks: Kittlitz (1930: No. 9) listed two specimens of *sericeus* as given to the ZIN, and none were found in SMF (Hartert 1891: 173). Thus, *Falco sericeus* was based on two syntypes. We found one of them, the whereabouts of the other syntype being unknown. The species was redescribed by Kittlitz (1833a: 1-2, pl. 1).

Tetraonidae

***Tetrao kamtschaticus* Kittlitz**

Tetrao kamtschaticus [sic] Kittlitz, 1858b: 354.
Now: *Tetrao urogalloides kamtschaticus* Kittlitz, 1858b.

Holotype: ZIN 1779 (Kittlitz 1830a: No. 208), skin, sad. M, collected by Kittlitz on 8 September 1828 half-way between "Koräki" and "Ratschiki" (Kittlitz 1858b: 353-354) = in "Camtschatka" (MZALCA label).

Type locality: near Korâki, Kamchatka, Russia; 53.28°N, 158.21°E.

Remarks: Kittlitz (1830a: No. 208) gave a single specimen to the ZIN and no specimen was found in SMF (Hartert 1891: 192). Thus, *Tetrao kamtschaticus* was based on a holotype. For the currently valid name of the species see Mlíkovský (2012a).

Rallidae

***Rallus monasa* Kittlitz**

Rallus Monasa Kittlitz, 1858b: 32.
Now: *Zapornia monasa* (Kittlitz, 1858b).

Fig. 2. ***Falco sericeus*** **Kittlitz, 1832b: syntype ZIN 77618, collected in 1829 at Manila, Philippines.**

Syntype (Fig. 3, right): ZIN 138165 (MZALCP 1305, Kittlitz 1830a: No. 240), relaxed mount, unsexed, ad., collected by Kittlitz during 8 December 1827 – 1 January 1828 on the island of "Ualan" [= Kosrae, Caroline Islands]. Figured by Nejfel'dt (1978, fig. 14 a,b,v). Original label absent.

Syntype (Fig. 3, left): ZIN 138166 (MZALCP 1304, Kittlitz 1830a: No. 240), relaxed mount, unsexed, ad., collected by Kittlitz during 8 December 1827 – 1 January 1828 on the island of "Ualan" [= Kosrae, Caroline Islands]. Original label absent.

Type locality: Kosrae (island; formerly Oualan or Ualan), Micronesia; 05.32°S, 162.98°E.

Remarks: This extinct species is known only from the two specimens collected by Kittlitz (Nejfel'dt 1978: 104, Hayes et al. 2016). For roentgen photos of both syntypes see Steadman (1987, fig. 5), for a redescription of the species see Hartlaub (1893: 389-395).

Fig. 3. *Rallus monasa* Kittlitz, 1858b: syntypes ZIN 138165 (right) and ZIN 138166 (left), both collected in 1827-1828 on Kosrae, Micronesia.

Scolopacidae

Tringa limbata Kittlitz

Tringa limbata "Lichtenstein" Kittlitz, 1836a: 230. [Nomen nudum; no descrition or indication.]
Tringa limbata "Lichtenstein" Kittlitz, 1836b: 281. [Nomen nudum; no descrition or indication.]
Tringa limbata Kittlitz, 1858a: 336. [Nomen nudum; no descrition or indication.]

Remarks: Kittlitz (1858a: 336) saw a specimen from Australia labeled by Lichtenstein as "*Tringa limbata*" in ZMB and collected a single specimen in October 1827 in the Avača Bay, Kamchatka, which he later gave to the ZIN (Kittlitz 1830a: 215).

Laridae

***Larus glaucopterus* Kittlitz**

Larus glaucopterus Kittlitz, 1836a: 230.
Now: *Larus glaucescens* Naumann, 1840.

Syntype: ZIN uncatalogued (MZALCP 2597, Kittlitz 1830a: No. 289), mount, ad., collected by Kittlitz during 25 September – 1 November 1827 or during 9 June – 11 November 1828 at Kamchatka (label) (date of collection inferred from Kittlitz's itinerary).

Type locality: southern Kamchatka (south of 56.5°N), Kamchatka, Russia; ca. 51-56.5°N, 156-161°E.

Remarks: Kittlitz (1836a,b) did not specify the type series of *glaucopterus*, but he mentioned that he recorded these birds at "Unalaschka" (Kittlitz 1836a: 224, 230, 1836b: 272, 280), "Sithka" (Kittlitz 1836a: 230, 1836b: 280) and "Port de Pétropavlovsky" (Kittlitz 1836a: 230, 1836b: 280). Kittlitz's (1830a) list includes only two "species", which may refer to *glaucopterus*: "*Larus* n.sp." (No. 285) from "Sitcha" and "Unalaschka" (two specimens) and "*Larus* n.sp." (No. 289) from Kamchatka (two specimens). Of them, only a specimen from Kamchatka and a specimen from Unlaska survived at ZIN, which represent an adult and a juvenile bird, respectively. This indicates that Kittlitz understood adult birds (his No. 289) and juvenile birds (his No. 285) as different species. The specific name given by Kittlitz (1836a,b) to this species (*glaucopterus* means glaucous-winged) shows that Kittlitz (1836a,b) applied this name to adult birds, i.e. to No. 289 of his list. Kittlitz (1830a: No. 289) gave two specimens to the ZIN and none was found in SMF (cf. Hartert 1891). Thus, *Larus glaucopterus* Kittlitz was based on two specimens, of which one is in ZIN, and one is in NHMW (Mlíkovský 2016).

Hartert (1921: 1733) doubtfully and Ûdin and Firsova (2002: 325) without doubts identified *Larus glaucopterus* Kittlitz with *Larus glaucescens* Naumann. A Brandt's figure of "*Larus glaucopterus*, Kittl." shows a *Larus glaucescens* Naumann (Finsch 1872: 20), but there is no evidence that the figured specimen belonged to the type series of *glaucopterus*. Both syntypes are *Larus glaucescens* Naumann, 1840. Due to this, *Larus glaucopterus* Kittlitz, 1836a is synonymous with *Larus glaucescens* Naumann, 1840, which it antedates. However, *glaucescens* should be retained as the valid name for the species until the case examined from the nomenclatural point of view.

Note that Kittlitz (1836b: 280) did not use „Larus Americo-Kamtchaticus" as a scientific name (contra Løppenthin 1984: 41); the expression was not used by Kittlitz (1836a).

***Sterna glacialis* Kittlitz**

Sterna glacialis Kittlitz, 1836a: 230. [Nomen nudum; no description or indication.]
Sterna glacialis Kittlitz, 1836b: 280. [Nomen nudum; no description or indication.]
Sterna glacialis Kittlitz, 1858a: 322. [Nomen nudum; no description or indication.]

Remarks: Kittlitz (1830a: No. 298) listed five specimens from Kamchatka as "*Sterna kamtschatica*", of which we found one specimen (ZIN 53425) in the ZIN. Another Kittlitz specimen from Kamchatka was found by Hartert (1891: 239) in SMF.

Alcidae

***Brachyramphus brachypterus* Brandt**

Brachyramphus brachypterus Brandt, 1837: col. 346.
Now: *Synthliboramphus antiquus* (J.F. Gmelin, 1789).

Holotype: ZIN 173335 (Kittlitz 1830a: No. 253), juv., collected by Kittlitz during 25-31 August 1827 at "Insel Amachnak" (Kittlitz 1858a: 286).

Type locality: Amaknak (islet near Unalaska), Aleutian Islands, Alaska, USA; 53.91°N, 166.54°W.

Remarks: This is also the holotype of *Uria cana* Kittlitz, 1858a.

***Brachyramphus kittlizii* Brandt**

Brachyramphus kittlizii Brandt, 1837. col. 346.
Now: *Brachyramphus brevirostris* Brandt, 1837.

Syntype: ZIN 5018 (Kittlitz 1830: No. 251), unsexed, ad., relaxed mount, in autumn plumage, collected by Kittlitz during 25 September – 1 November 1827 or during 9 June – 11 November 1828 at Kamchatka (label; date of collection inferred from Kittlitz's itinerary).

Syntype: ZIN uncatalogued (MZALCP 911, Kittlitz 1830: No. 251), unsexed, ad., mounted bird in autumnal plumage, collected by Kittlitz during 25 September – 1 November 1827 or during 9 June – 11 November 1828 at Kamchatka (label; date of collection inferred from Kittlitz's itinerary).

Remarks: Kittlitz (1830a: No. 251) gave two specimens to ZIN and none was found in SMF (Hartert 1891). Thus, *Brachyramphus brevirostris* was based by Brandt (1837) on two specimens.

***Uria cana* Kittlitz**

Ur[ia] cana Kittlitz, 1836a: 225. [Nomen nudum; no description or indication.]
Uria cana Kittlitz, 1836b: 272. [Nomen nudum; no description or indication.]
Uria cana Kittlitz, 1858a: 288.
Now: *Synthliboramphus antiquus antiquus* (J.F. Gmelin, 1789).

Holotype: ZIN 173335 (Kittlitz 1830a: No. 253), relaxed mount, unsexed, first-year bird in nesting plumage, collected by Kittlitz during 25-31 August 1827 at "Insel Amachnak" (Kittlitz 1858a: 286).

Type locality: Amaknak (islet near Unalaska), Aleutian Islands, Alaska, USA; 53.91°N, 166.54°W.

Fig. 4. ***Columba versicolor*** **Kittlitz, 1832b: lectotype ZIN 138161, collected in 1828 on Chichijima, Japan.**

Remarks: Kittlitz (1830a) gave to ZIN only three specimens of auks of three species (in his sense) collected at Unalaska and none from "Amachnak" Island. However, Kittlitz (1858a: 286) said that "Amachnak" was a small rocky island close to Unalaska, and that he visited the "Amachnak" Island with a boat when his ship anchored in an Unalaska bay. Kittlitz (1858a: 288) mentioned that he collected only one specimen of this species, which was unique in having very short wings. No *Uria cana* from Unalaska

or elsewhere was listed by Kittlitz (1830a). However, he listed (under No. 253) a single specimen of *Uria brachyptera* from Unalaska (note that the specific name means "short-winged"). Thus, we conclude that this specimen (now ZIN 173335) is the holotype of *Uria cana* Kittlitz.

The holotype of *Uria cana* Kittlitz, 1858a is also the holotype of *Brachyramphus brachypterus* Brandt (1837: col. 346).

***Mormon septentrionale* Kittlitz**

Mormon septentrionale Kittlitz, 1832a: col. 1105. [Nomen nudum; no description or indication.]

Remarks: Kittlitz (1832a: col. 1105) noted that this species is called "ipatka" by local people, which is a Russian name for the species now known as *Fratercula corniculata* (Naumann, 1821). Kittlitz (1830a: No. 257) listed three specimens of "*Mormon septentrionalis*" as given to the ZIN, but we have found none of them.

Columbidae

***Columba kitlizii* [sic] Temminck**

Columba kitlizii [sic] Temminck, 1836a: text to pl. 578.
Now: *Columba versicolor* Kittlitz, 1832.

Remarks: Temminck (183b: text to pl. 578) said that the types are in ZIN and SMF. This is the same two specimens upon which *Columba versicolor* Kittlitz (1832: 5) was based (see below). *Columba kitlizii* Temminck, 1835 is thus a junior objective synonym of *Columba versicolor* Kittlitz, 1832.

***Columba versicolor* Kittlitz**

Columba versicolor Kittlitz, 1832b: 5, pl. 5, fig. 2.
Now: *Columba versicolor* Kittlitz, 1832.

Lectotype (designated by Nejfel'dt 1978: 105) (Fig. 4): ZIN 138161 (Kittlitz 1830a: No 202), skin, unsexed, ad., collected by Kittlitz during 2-15 May 1828 on "Boninsima" (label) (date of collection inferred from Kittlitz's itinerary).

Type locality: Chichijima (island), Ogasawara Archipelago, Japan; 27.07°N, 142.21°E.

Remarks: Extinct species; known only from four specimens collected from 1827-1889 (Nejfel'dt 1978: 105), of which we located two, including a lectotype in ZIN and a paralectotype in SMF (Mlíkovský 2016). Hartert (1891: 190) said that the SMF specimen of *versicolor* is a "Typus". However, he used this notation to say that the specimen belongs to a type series, not that it is a lectotype (Steinbacher 1954: 301).

***Janthoenas nitens* Stejneger**

Janthoenas nitens Stejneger, 1887: 421.
Now: *Columba janthina nitens* (Stejneger).

Holotype (Fig. 5): ZIN 107867 (MZALCP 3020; Kittlitz 1830: No. 203), unsexed, ad., collected in May 1828 (inferred from Kittlitz's itinerary) on "Boninsima" (label).

Fig. 5. ***Janthoenas nitens*** **Stejneger, 1887: holotype ZIN 107867 (MZALCP 3020), collected in May 1828 on "Boninsima".**

Apodidae

Cypselus inquietus Kittlitz

C[ypselus] inquietus Kittlitz, 1836a: 234.
Now: *Aerodramus inquietus inquietus* (Kittlitz, 1836a).

Syntype: ZIN 139943 (Kittlitz 1830a: No. 68), skin, unsexed, ad., collected by Kittlitz during 8 December 1827 – 1 January 1828 in "Ualan" (label) (date of collection inferred from Kittlitz's itinerary).

Type locality: Kosrae (island; formerly Oualan or Ualan), Micronesia; 05.32°S, 162.98°E.

Remarks: Kittlitz (1830a: No. 68) gave two specimens of *inquietus* to the ZIN and none were found in SMF (cf. Hartert 1891: 118). Thus, *Cypselus inquietus* was based on two syntypes, of which we have found a single.

The specific name *inquietus* is usually attributed to Kittlitz (1858b: 26), but the name was created already by Kittlitz (1836a: 234), who accompanied it with a very brief, but useful description (the description became somewhat indistinct in the French translation: Kittlitz 1836b: 285).

Alcedinidae

***Alcedo rufirostris* Kittlitz**

Alcedo rufirostris "Berlin Mus." Kittlitz, 1833b: 10, pl. 14, fig. 2.
Now: *Halcyon smyrnensis gularis* (Kuhl, 1820).

Syntype: ZIN 92802 (Kittlitz 1830a: No. 279), skin, ad. M, collected by Kittlitz during 13-30 January 1829 at "Manila"; originally labeled as "*Alcedo rufirostris* (Ber. Mus.)" (date of collection inferred from Kittlitz's itinerary).

Type locality: Manila, Luzon (island), Philippines; 14.58°N, 120.97°E.

Remarks: Kittlitz (1833b: 10) took the name for this species from a label in the ZMB, but mentioned that he recorded the species on the island of Luzon (p. 10) and listed, under the name *Alcedo rufirostris*, four specimens as given to the ZIN (Kittlitz 1830a: No. 79). Another Kittlitz's specimen is deposited in SMF (Hartert 1891: 131). All of these six specimens are thus syntypes of *Alcedo rufirostris* Kittlitz. We located two of them: a syntype in ZIN and a syntype in ZMB (Mlíkovský 2016). SysTax (2016) listed the ZMB specimen as a holotype of *rufirostris*, which is incorrect.

Picidae

***Picoides albidior* Stejneger**

Picoides albidior Stejneger, 1885: 321.
Now: *Picoides tridactylus albidior* Stejneger, 1885.

Remarks: Stejneger (1885: 321) based *albidior* solely on *Picus tridactylus* of Kittlitz (1858: 327, 329) and *Picoides crissoleucos* of Taczanowski (1882: 396), without having seen a specimen (Deignan 1961: 229). Both Taczanowski (1882: 396-397) and Kittlitz (1858: 329) provided description for three-toed woodpeckers of Kamchatka; the name is thus available for nomenclatural purposes via indication (Art. 12.2.1 of the Code). Kittlitz (1830: No. 171) had two specimens (both collected by him on 4 October 1827 at Avača Bay; Kittlitz 1858a: 327, 329) and Taczanowski (1882: 396) had five specimens; the type series of Stejneger's *albidior* thus consists of seven syntypes. Of them, we located only one syntype in MIZ (Mlíkovský 2016).

Stejneger (1889: 168) provided a description of specimen USNM 110000 (ad. M, collected by J.E. Hunter at Petropavlovk-Kamčatskij), which he called "type". We agree with Deignan (1961: 229) that the USNM specimen is a topotype, not a name-bearing type of *albidior*. Vaurie (1965: 732) incorrectly attributed *albidior* to Stejneger (1888: 168). Hargitt (1890: 277) said that he examined the "type" of *albidior*, which presumably was the USNM specimen without type status.

Fig. 6. *Phytotoma silens* Kittlitz, 1830b: lectotype ZIN 145234 (right) and paralectotype ZIN 145235 (left), both collected in 1827 at Valparaíso, Chile.

Phytotomidae

Phytotoma silens Kittlitz

Phytotoma silens Kittlitz, 1830b: 175, pl. 1.
Now: *Phytotoma rara* Molina, 1782.

Lectotype (designated by Chrostowski 1921: 13) (Fig. 6, right): ZIN 145234 (Kittlitz 1830a: No. 133), relaxed mount, ad. M (before the end of complete moult), collected by Kittlitz during 26 March – 15 April 1827 in "Chili" (labels, Kittlitz 1931: No. 133) = at "Valparaiso" (Chrostowski 1921: 13, 1922: 391) (date of collection inferred from Kittlitz's itinerary).

Paralectotype (Fig. 6, left): ZIN 145235 (Kittlitz 1830a: No. 133), relaxed mount, ad. F (in fresh plumage), collected by Kittlitz during 26 March – 15 April 1827 in "Chili" (label) = at Valparaíso (date and locality of collection inferred from Kittlitz's itinerary, Kittlitz 1858a: 151).

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W.

Remarks: Kittlitz (1830a: No. 133) gave five specimens to the ZIN and no specimens were found in SMF (cf. Hartert 1891: 107). We located two specimens in ZIN, one paralectotype in NHMW and a possible paralectotype in ZMB (Mlíkovský 2016).

Tyrannidae

***Muscicapa Parulus* Kittlitz**

Muscicapa Parulus Kittlitz, 1830b: 190, pl. 9.
Now: *Anairetes parulus parulus* (Kittlitz, 1830b).

Holotype (Fig. 7): ZIN 116929 (Kittlitz 1830a: No. 188), relaxed mount, unsexed, ad. (in worn plumage), collected by Kittlitz in March 1827 (see below) in "Chili" (label).

Remarks: Chrostowski (1921: 17) said that the holotype was collected on 27 March 1827 at "Valparaiso", but Kittlitz collected this species on 17 March 1827 at Concepción (Kittlitz 1858a: 122) and on 27 March 1827 at Valparaíso (Kittlitz 1858a: 135). It is unknown which of the two birds Kittlitz brough with him to the ZIN.

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W; or Concepción, Chile; 36.83°S, 73.05°W.

Remarks: Kittlitz (1830a: No. 188) gave a single specimen to the ZIN and no specimens were found in SMF (cf. Hartert 1891: 102). Thus, the ZIN specimen is the holotype of *parulus*. It is noteworthy that Kittlitz (1831: 190) described the iris color of the bird as "neapelgelb" and ZIN preparators provided the mounted specimen with glass eyes with pale yellow iris (these eyes are still present in the holotype).

***Muscicapa Pyrope* Kittlitz**

Muscicapa Pyrope Kittlitz, 1830b: 191, pl. 10.
Now: *Xolmis pyrope pyrope* (Kittlitz, 1830b).

Lectotype (designated by Chrostowski 1921: 17) (Fig. 8, right): ZIN 116491 (Kittlitz 1830a: No. 187), relaxed mount, unsexed (possible M), ad. (very fresh plumage in last stage of moult), collected by Kittlitz on 16 March – 15 April 1827 in "Chili" (label) (date of collection inferred from Kittlitz's itinerary). Chrostowski (1921: 17) said that Kittlitz collected this specimen at "El Tomé", but this unsubstantiated.

Paralectotype (Fig. 8, left): ZIN 116490 (Kittlitz 1830a: No. 187), relaxed mount, unsexed, ad. (very fresh plumage in the last stage of moult), collected by Kittlitz on

Fig. 7. ***Muscicapa parulus*** **Kittlitz, 1830b 1: holotype ZIN 116929, collected in 1827 at Concepción or Valparaíso, Chile.**

16 Marh - 15 April 1827 in "Chili" (label) (date of collection inferred from Kitlitz's itinerary).

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W; or Concepción, Chile; 36.83°S, 73.05°W. This is the only two places visited by Kittlitz in Chile.

Remarks: Kittlitz (1830a: No. 187) gave three specimens of *pyrope* to the ZIN and none were found in SMF (Hartert 1891). We located all of these specimens: two in ZIN and one in NHMW (Mlíkovský 2016). Chrostowski (1921: 17) designated a lectotype, which we were able to identify using his measurements of the specimen. The lectotype has sharply narrowed tips of three outer primaries (unlike the ZIN paralectotype).

Kittlitz (1858a: 121) mentined that he received this species already in Brazil (i.e. in Rio-de-Janeiro during 8-25 January 1827), that he found it common at La Concepción, but rare at Valparaíso. However, in his list (Kittlitz 1830a: No. 187) he said that all specimen he gave to the ZIN were from Chile.

Fig. 8. ***Muscicapa pyrope*** **Kittlitz, 1830b: lectotype ZIN 116491 (right) and paralectotype ZIN 116490 (left), both collected in 1827 at Concepción or Valparaíso, Chile.**

Tamnophilus lividus **Kittlitz**

Tamnophilus [sic] *lividus* Kittlitz, 1835: 465, pl. 1.
Now: *Agriornis lividus lividus* (Kittlitz, 1835).

Lectotype (designated by Chrostowski 1921: 18) (Fig. 9, left): ZIN 116488 (Kittlitz 1830a: No. 27), relaxed mount, unsexed, ad. (molting), collected by Kittlitz on 16 March – 15 April 1827 in "Chili" (label) (date of collection inferred from Kittlitz's

Fig. 9. *Tamnophilus lividus* Kittlitz, 1835: lectotype ZIN 116488 (left) and paralectotype ZIN 116487 (right), both collected in 1827 at Concepción or Valparaíso, Chile.

itinerary). Molting are primaries (P1-5 old, P6 missing, P7-10 new; numbered from outside) and tail feathers.

Paralectotype (Fig. 9, right): ZIN 116487 (Kittlitz 1830a: No. 27), relaxed mount, unsexed, ad. (worn plumage), collected by Kittlitz on 16 March – 15 April 1827 in "Chili" (label) (date of collection inferred from Kittlitz's itinerary).

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W; or Concepción, Chile; 36.83°S, 73.05°W. This is the only two places visited by Kittlitz in Chile.

Fig. 10. ***Pteroptochos albicollis*** **Kittlitz, 1830b: lectotype ZIN 145253, collected in 1827 at Valparaíso, Chile.**

Remarks: Kittlitz (1830a: No. 187) gave two specimens of *lividus* to the ZIN and none were found in SMF (cf. Hartert 1891: 101). Thus, this species was probably based on two specimens. Chrostowski (1921: 18) designated a lectotype, which we were able to identify using his measurements of the specimen. Kittlitz (1858a: 121) collected a specimen (unknown whether the lectotype or paralectotype) on 17 March 1827 at La Concepción, another specimen(s) on 27 March 1827 at Valparaíso (Kittlitz 1858a: 135) and recorded the species even later at Valparaíso (Kittlitz 1858a: 147).

Rhinocryptidae

Pteroptochos Rubecula Kittlitz

Pteroptochos Rubecula Kittlitz, 1830b: 179, pl. 2.
Now: *Scelorchilus rubecula rubecula* (Kittlitz, 1830b).

Holotype: ZIN 145254 (Kittlitz 1830a: No. 30), relaxed mount, M (?), collected by Kittlitz on 17 March 1827 at "La Concepcion" (Kittlitz 1858a: 123, Chrostowski 1921: 14). The specimen cannot be sexed using external characters, but Kittlitz (1858a: 123) said that it was a male.

Type locality: Concepción, Chile; 36.83°S, 73.05°W.

Remarks: Kittlitz (1830a: No. 30) gave a single specimen to the ZIN and no specimens were found in SMF (cf. Hartert 1891: 113). The ZIN specimen is thus the holotype of *rubecula*.

***Pteroptochos albicollis* Kittlitz**

Pteroptochos albicollis Kittlitz, 1830b: 180, pl. 3; see also Kittlitz (1833b: 13, pl. 16, fig. 2).
Now: *Scelorchilus albicollis albicollis* (Kittlitz, 1830b).

Lectotype (designated by Chrostowski 1921: 14) (Fig. 10): ZIN 145253 (Kittlitz 1830a: No. 29), relaxed mount, unsexed, collected by Kittlitz on 27 March 1827 at "Valparaiso" (Kittlitz 1858a: 136). Chrostowski (1921: 14) incorrectly said that this specimen was collected on 18 March 1827 at "El Tomé".

Paralectotype: SMF 16727, unsexed, collected on 27 March 1827 at "Valparaiso" (Steinbacher 1954: 302).

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W.

Remarks: Kittlitz (1830a: No. 29) gave two specimens to the ZIN and a single specimen was found in SMF (Hartert 1891: 113, Steinbacher 1954: 302). Thus, this species was based on three specimens, of which we located one in ZIN and one in SMF (Mlíkovský 2016).

***Pteroptochos megapodius* Kittlitz**

Pteroptochos megapodius Kittlitz, 1830b: 182, pl. 4; see also Kittlitz (1833b: 13, pl. 16, fig. 1).
Now: *Pteroptochos megapodius megapodius* Kittlitz, 1830b.

Lectotype (designated by Chrostowski 1921: 15) (Fig. 11, left): ZIN 145255 (Kittlitz 1830a: No. 28), relaxed mount, unsexed, collected by Kittlitz during 27 March – 15 April 1827 in "Chili" (label) = at "Valparaiso" (Kittlitz 1858a: 137, Chrostowski 1921: 15).

Paralectotype (Fig. 11, right): ZIN 145256 (Kittlitz 1830a: No. 28): relaxed mount, unsexed, collected by Kittlitz during 27 March – 15 April 1827 in "Chili" (label).

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W.

Remarks: Kittlitz (1830a: No. 28) gave five specimens to the ZIN, and two to the SMF (Hartert 1891: 113, Steinbacher 1954: 302, Steinheimer 2002). Thus, this species was based on seven specimens, of which we have located five, including two in ZIN, and one each in NHMUK, NHMW and SMF (Mlíkovský 2016). Chrostowski (1921: 15) designated a lectotype, which we were able to identify using his measurements of the bird. Kittlitz (1858a: 137) recorded this speies only at Valparaíso, for the first time on 27 March 1827.

Fig. 11. ***Pteroptochos megapodius*** **Kittlitz, 1830b: lectotype ZIN 145255 (left) and paralectotype ZIN 145256 (right), both collected in 1827 at Valparaíso, Chile.**

Troglodytes paradoxus Kittlitz

Troglodytes paradoxus Kittlitz, 1830b: 184, pl. 5.

Now: *Eugralla paradoxa* (Kittlitz, 1830b).

Fig. 12. ***Alauda fissirostris*** **Kittlitz, 1835: lectotype ZIN 117322 (right) and paralectotype ZIN 117323 (left), both collected in 1827 at Valparaíso, Chile.**

Holotype: ZIN 145252 (Kittlitz 1830a: No. 31), relaxed mount, unsexed, collected by Kittlitz on 17 March 1827 in "Chili" (label) = at "El Tomé" (Kittlitz 1858a: 124, Chrostowski 1921: 15).

Type locality: Tomé, Chili; 36.62°S, 72.95°W.

Remarks: Kittlitz (1830a: No. 31) gave a single specimen to the ZIN and no specimens were found in SMF (cf. Hartert 1891). Thus the ZIN specimen is the holotype of *paradoxus*.

Malacorhamphus araucanus is a Kittlitz's manuscript name, first listed in synonymy of *Troglodytes paradoxus* Kittlitz, 1830b by Kittlitz (1858a: 124). This name was not validated under Art. 11.6.1 of the Code prior to 1961 and it is thus a nomen nudum. Cory & Hellmayr (1924: 24) incorrectly said that *Malacorhamphus araucaus* is a new (replacement) name for *Troglodytes paradoxus*.

Furnariidae

***Alauda fissirostris* Kittlitz**

Alauda fissirostris Kittlitz, 1835: 468, pl. 3.
Now: *Geositta cunicularia fissirostris* (Kittlitz, 1835).

Lectotype (designated by Chrostowski 1921: 19) (Fig. 12, right): ZIN 117322 (Kittlitz 1830a: No. 120), relaxed mount, unsexed, collected by Kittlitz during 16 March – 15 April 1827 in "Chili" (label) = at "Valparaiso" (Kittlitz 1858a: 146, Chrostowski 1921: 19; date of collection inferred from Kittlitz's itinerary).

Paralectotype (Fig. 12, left): ZIN 117323 (Kittlitz 1830a: No. 120), relaxed mount, unsexed, collected by Kittlitz during 16 March – 15 April 1827 in "Chili" (label) = "Valparaiso" (Kittlitz 1858a: 146; date of collection inferred from Kittlitz's itinerary).

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W.

Remarks: Kittlitz (1830a: No. 120) gave two specimens to the ZIN and no specimens were found in SMF (cf. Hartert 1891). Thus, this species was based on two specimens, both of which are deposited in ZIN. Both specimens have Kittlitz's labels bearing number 120 of his list (Kittlitz 1830a: No. 120) and both were originally labeled "*Alauda* n. sp." by Kittlitz's hand. The "n. sp." was crossed and replaced with "*fissirostris*" by a later (though still a 19th century) hand. Chrostowski (1921: 19) said that he has found only one specimen of *fissirostris* in the ZIN, which apparently was this one.

Kittlitz (1858a: 146, 178) recorded this species only at Valparaíso. Kittlitz (1858a: 146) mentioned that he collected at Valparaíso three specimens of this species, some possibly on 29 March 1827 (cf. Kittlitz 1858a: 146) and some on 10 April 1827 (Kittlitz 1858a: 178).

***Opetiorynchos rupestris* Kittlitz**

Opetiorynchos rupestris Kittlitz, 1830b: 188, pl. 8.
Now: *Cinclodes patagonicus chilensis* (Lesson, 1828).

Lectotype (designated by Hellmayr 1914: 175) (Fig. 13): ZIN 117320 (Kittlitz 1830a: No. 109), relaxed mount, unsexed, collected by Kittlitz during 16-20 March 1827 in "Chili" (label) = "Tomé" (Kittlitz 1858a: 117).

Type locality: Tomé, Chili; 36.62°S, 72.95°W.

Remarks: Kittlitz (1830a: No. 109) gave two specimens to the ZIN and no specimens were found in SMF (cf. Hartert 1891). Thus this species was based on two specimens,

Fig. 13. ***Opetiorynchos rupestris*** **Kittitz, 1830b 1: lectotype ZIN 117320, collected in 1827 at Tomé, Chile.**

of which we found a single. Hellmayr (1914: 175) called the ZIN specimen "the type", which can be understood as a lectotypification. Subsequently, Chrostowski (1921: 16) designated the same specimen as the lectotype of *rupestris*, but Hellmayr's (1914) action takes precedence. Kittlitz (1858a: 117) collected a specimen on 16 March 1827 at "Tomé", but it is unclear whether this was the lectotype or another specimen. However, he did not mention this species among the birds he encountered at Valparaíso, so it is higly probable that he collected both specimens at La Concepción. For taxonomic comments on *Opetiorynchos rupestris* see Lesson (1840: 267), Hellmayr (1914: 175-176) and Cory & Hellmayr (1925: 31).

Synnalaxis Aegithaloïdes **Kittlitz**

Synnalaxis Aegithaloïdes Kittlitz, 1830b: 187, pl. 7.
Now: *Leptasthenura aegithaloides aegithaloides* (Kittlitz, 1830b).

Fig. 14. *Synallaxis aegithaloides* Kittlitz, 1830b: holotype ZIN 117365, collected in 1827 at Valparaíso, Chile.

Holotype (Fig. 14): ZIN 117365 (Kittlitz 1830a: No. 37), relaxed mount, unsexed, ad. (fresh plumage), collected on 27 March 1827 in "Chili" (label) = at "Valparaiso" (Kittlitz 1858a: 135, Chrostowski 1921: 16).

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W.

Remarks: Kittlitz (1830a: No. 37) gave a single specimen to the ZIN and no specimens were found in SMF (cf. Hartert 1891). Thus, the ZIN specimen is the holotype of *aegithaloides*.

***Synnalaxis humicola* Kittlitz**

Synnalaxis humicola Kittlitz, 1830b: 185, pl. 6.
Now: *Pseudasthenes humicola humicola* (Kittlitz, 1830b).

Lectotype (designated by Chrostowski 1921: 15) (Fig. 15, right): ZIN 117389 (Kittlitz 1830a: No. 38), skin, unsexed, ad. (fresh plumage, molting tail), collected by Kittlitz during 27 March – 15 April 1827 in "Chili" (label) = at "Valparaiso" (Kittlitz 1858a: 135, Chrostowski 1921: 16). Molting record of the tail: R5-6 (outermost) are growing (R5 = 4/5 of full length, R6 = 3/4 of full length). Chrostowski (1921: 16) said that this specimen was collected on 27 March 1827, but this is date when Kittlitz (1858a: 135) collected *humicola* for the first time; it is unknown on which date he collected the lectotype.

Fig. 15. ***Synallaxis humicola*** **Kittlitz, 1830b: lectotype ZIN 117389 (right) and paralectotype ZIN 117390 (left), both collected in 1827 at Valparaíso, Chile.**

Paralectotype (Fig. 15, left): ZIN 117390 (Kittlitz 1830a: No. 38), skin, ad. (fresh plumage), collected by Kittlitz during 27 March – 15 April 1827 in "Chili" (label) = at "Valparaiso" (Kittlitz 1858a: 135).

Paralectotype: ZIN 117391 (Kittlitz 1830a: No. 38), skin, ad. (fresh plumage), collected by Kittlitz during 27 March – 15 April 1827 in "Chili" (label) = at "Valparaiso" (Kittlitz 1858a: 135).

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W.

Remarks: Kittlitz (1830a: No. 38) gave tree specimen to the ZIN and a fourth specimen was found in SMF (Hartert 1891: 109, Steinbacher 1954: 302). Thus, this species

was based on four specimens; we located all of them: three in ZIN and one in SMF (Mlíkovský 2016). Chrostowski (1921: 15) designated a ZIN specimen as a lectotype of *humicola*; we identified it using his measurements of this specimen. Kittlitz (1858a: 135) said that he first recorded (and collected) this species on 27 March 1827 at Valparaíso. This was his last Chilean locality, so that all his specimens were collected at Valparaíso.

Rhipiduridae

***Muscicapa Bambusae* Kittlitz**

Muscicapa Bambusae Kittlitz, 1832b: 7, pl. 9, fig. 2; see also Kittlitz (1833a: 5, pl. 6).
Now: *Rhipidura nigritorquis* Vigors, 1831.

Syntype: ZIN 152707 (Kittlitz 1830a: No. 192), relaxed mount, unsexed, collected by Kittlitz during 13-30 January 1829 at "Manila" (label; date of collection inferred from Kittlitz's itinerary).

Syntype: ZIN 152708 (Kittlitz 1830a: No. 192), relaxed mount, unsexed, collected by Kittlitz during 1330 January 1829 at "Manila" (label; date of collection inferred from Kittlitz's itinerary).

Type locality: Manila, Luzon (island), Philippines; 14.58°N, 120.97°E.

Remarks: Kittlitz (1830a: No. 192) gave two specimens to the ZIN and no specimens were found in SMF (cf. Hartert 1891: 95). Thus, this species was based on two syntypes, both of which are still deposited in the ZIN.

Sylviidae

***Sylvia diphone* Kittlitz**

Sylvia diphone Kittlitz, 1831: 237, pl. 14.
Now: *Horornis diphone diphone* (Kittlitz, 1831).

Syntype: ZIN 101296 (MZALCP 3765, Kittlitz 1830a: No. 50), relaxed mount, unsexed, collected by Kittlitz during 2-15 May 1828 at "Boninsima" (label; date of collection inferred from Kittlitz's itinerary).

Syntype: ZIN 101297 (MZALCP 4005, Kittlitz 1830a: No. 50), relaxed mount, unsexed, collected by Kittlitz during 2-15 May 1828 at "Boninsima" (label; date of collection inferred from Kittlitz's itinerary).

Syntype: ZIN 101298 (MZALCP 11925, Kittlitz 1830a: No. 50), relaxed mount, unsexed, collected by Kittlitz during 2-15 May 1828 at "Boninsima" (label; date of collection inferred from Kittlitz's itinerary).

Type locality: Chichijima (island), Ogasawara Archipelago, Japan; 27.07°N, 142.21°E.

Remarks: Kittlitz (1830a: No. 50) gave three specimens to the ZIN and no specimens were found in SMF (cf. Hartert 1891). Thus, this species was based on three syntypes, all of which are still deposited in the ZIN. Original labels are absent from all ZIN specimens. Anonymous (2014: 506) incorrectly dated *diphone* from 1830.

***Sylvia Syrinx* Kittlitz**

Sylvia Syrinx Kittlitz, 1833a: 6, pl. 8.
Now: *Acrocephalus syrinx* (Kittlitz, 1833a).

Syntype: ZIN 152602 (MZALCP 4013, Kittlitz 1830a: No. 49), relaxed mount, unsexed, collected by Kittlitz on 6-10 March 1828 at "Lugunor a Ulcei, ins. Carolin. // a Kittlitz" (MZALCP yellow label)

Syntype: ZIN 152603 (MZALCP 5029, Kittlitz 1830a: No. 49), relaxed mount, unsexed, collected by Kittlitz on 6-10 March 1828 at "Lugunor a Ulcei, ins. Carolin. // a Kittlitz" (MZALCP yellow label)

Type locality: Lukunor (atoll), Nomoi Islands, Micronesia; 05.50°N, 153.82°E.

Remarks: Kittlitz (1830a: No. 49) gave two specimens to the ZIN and another specimen was found in SMF (Hartert 1891: 12, Steinbacher 1954: 303). Thus, the species was based on three syntypes, of which we located all: two in ZIN and one in SMF (Mlíkovský 2016).

***Sylvia chloris* Kittlitz**

Sylvia Chloris Kittlitz, 1858a: 314. [Nomen nudum; no description or indication.]
Sylvia Chloris Kittlitz, 1858b: 200.
Now: *Seicercus xanthodryas* (Swinhoe, 1863: 296).

Syntype: ZIN 102615 (MZALCP 4000, Kittlitz 1830a: No. 42), relaxed mount, unsexed, collected by Kittlitz on 26-30 September 1827 or 10 June – 30 September 1828 in "Kamtschatka" (MZALCP label) (for the date of collection see Remarks below). Original label is missing.

Syntype: ZIN 102616 (MZALCP 4965, Kittlitz 1830a: No. 42), relaxed mount, unsexed, collected by Kittlitz on 26-30 September 1827 or 10 June – 30 September 1828 in "Kamtschatka" (MZALCP label) (for the date of collection see Remarks below). Original label is missing.

Syntype (lost): SMF, unsexed, collected by Kittlitz on 26-30 September 1827 or 10 June – 30 September 1828 in "Kamtschatka" (specimen found by Hartert 1891: 13, but no more by Steinbacher 1954) (for the date of collection see Remarks below).

Type locality: southern Kamchatka (south of 56.5°N), Kamchatka, Russia; ca. 51-56.5°N, 156-161°E.

Remarks: Kittlitz (1830a: No. 42) gave three specimens to the ZIN and another specimen was found in SMF by Hartert (1891: 13). Thus, this species was based on four syntypes, of which we found two. Kittlitz (1858a: 314, 1858b: 200) mentioned that he has first recorded this species on 26 September in 1827 and on 10 June in 1828, and last bird of this species disappear toward the end of September. This narrows the possible dates of collection to periods given above.

Pleske (1889b: 169-171) identified both ZIN syntypes of *chloris* as belonging to the form *xanthodryas* of Swinhoe (1863), which is a valid form (Reeves et al. 2008, Saitoh et al. 2008, 2010). The *chloris* of Kittlitz was unknown to Seebohm (1881), Hartert (1903-1922, Hartert & Steinbacher 1932-1938) and Vaurie (1959). *Sylvia chloris* Kitt-

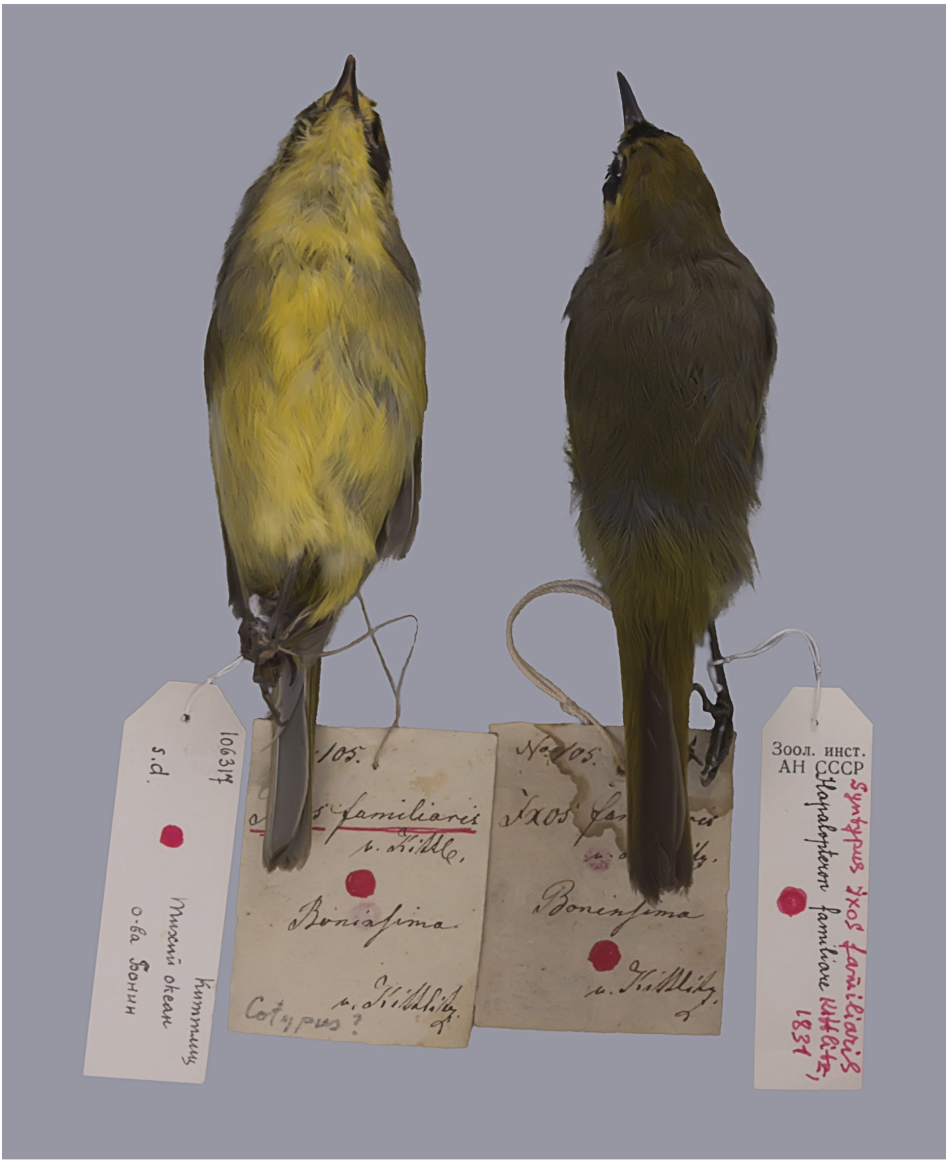

Fig. 16. ***Ixos familiaris*** **Kittlitz, 1831: syntypes ZIN 106314 (right) and ZIN 106317 (left), both collected in 1828 on Chichijima, Japan.**

litz, 1858b antedates *Phyllopneuste xanthodryas* Swinhoe (1863: 296). However, *xanthodryas* should be retained as the valid name for the species until the case examined from the nomenclatural point of view.

Zosteropidae

Ixos familiaris Kittlitz

Ixos familiaris Kittlitz, 1831: 235, pl. 13.
Now: *Apalopteron familiare familiare* (Kittlitz, 1831).

Syntype (Fig. 16, left): ZIN 106317 (Kittlitz 1830a: No. 105), relaxed mount, unsexed, collected by Kittlitz during 2-15 May 1828 at "Boninsima" (label; date of collection inferred from Kittlitz's itinerary).

Syntype (Fig. 16, right): ZIN 153314 (Kittlitz 1830a: No. 105), relaxed mount, unsexed, collected by Kittlitz during 2-15 May 1828 at "Boninsima" (label; date of collection inferred from Kittlitz's itinerary).

Type locality: Chichijima (island), Ogasawara Archipelago, Japan; 27.07°N, 142.21°E.

Remarks: Kittlitz (1830a: No. 105) gave four specimens to ZIN and one specimen was found in SMF (Hartert 1891: 35). Thus, Kittlitz based *familiare* on five syntypes. We found all of them, including two in ZIN and one each in NHMW, RMNH and SMF (Mlíkovský 2016).

Yamashina (1930) doubted that Kittlitz collected this bird on the island of Chichijima, suggesting that it was collected on Muko Shima, northern Bonin Islands, but Suzuki & Morioka (2005) confirmed that Chichijima is the type locality of *Ixos familiaris* Kittlitz. *Apalopteron familiare* white-eyes are endemic to the Ogasawara Islands. Although the species is now considered monotypic, morphological and molecular variation among populations inhabiting individual islands were detected (Kawakami et al. 2008). The population of Chichijima is extinct (Suzuki & Morioka 2005). Anonymous (2014: 525) incorrectly dated *familiare* from 1830.

Dicaeum conspicillatum Kittlitz

Dicaeum conspicillatum Kittlitz, 1833b: 15, pl. 19, fig. 1; see also Kittlitz (1833a: 3, pl. 4).
Now: *Zosterops conspicillatus conspicillatus* (Kittlitz, 1833).

Holotype (Fig. 17): ZIN 154906 (Kittlitz 1830a: No. 54), relaxed mount, collected by Kittlitz during 1-20 March 1828 on "Ualan" = error for "Guaham" [= Guam].

Type locality: Guam (island), Mariana Islands, USA; 13.50°N, 144.80°E.

Remarks: Kittlitz (1830a: No. 54) gave a single specimen to the ZIN and no specimens were found in SMF (cf. Hartert 1891: 29-30). Thus, the ZIN specimen is the holotype of this species.

The old label attached to this specimen bears confusing information. It bears Kittlitz's (1830a) number 58, locality "Ualan" and bird's name "*Philedon* n. sp.", all of which agree with the data for Kittliz's *Drepanis* (= *Zosterops*) *cinerea*. However, the bird was subsequently (though still in Kittlitz's times) called "*Dicaeum conspicillatum*". The specimen agrees with that shown by Kittlitz's (1833) on pl. 19, fig. 1, and is clearly different from *Zosterops cinereus* (Kittlitz). We thus assume that a label originally prepared for a *Drepanis cinerea* Kittlitz was attached, by error, to the Kittlitz's *Zosterops* specimen from the island of Guam. We have no doubt that ZIN 154906 is the holotype of *Dicaeum conspicillatum* Kittlitz.

Fig. 17. *Dicaeum conspicillatum* Kittlitz, 1833b: holotype ZIN 154906, collected in 1828 on Guam, Mariana Islands.

Zosterops conspicillatus conspicillatus, formerly endemic to the island of Guam (cf. Slikas et al. 2000), is probably extinct (Savage 1987, Hume & Walters 2012: 264-265).

***Drepanis cinerea* Kittlitz**

Drepanis cinerea Kittlitz, 1832b: 6, pl. 8, fig. 2; see also Kittlitz (1833a: 4, pl. 5).
Now: *Zosterops cinereus cinereus* (Kittlitz, 1832).

Syntype: ZIN 153142 (Kittlitz 1830a: No. 58), relaxed mount, unsexed, collected by Kittlitz during 8 December 1827 – 1 January 1828 on "Ualan" (label). This bird was called on the original label "*Philedon* n. sp.", then "*Drepanis cinerea*" and still later "*Diceum cinereum*".

Syntype: ZIN 154907 (Kittlitz 1830a: No. 58), relaxed mount, unsexed, collected by Kittlitz during 8 December 1827 – 1 January 1828 on "Ualan". The same inscriptions on the original labels as in ZIN 153142.

Type locality: Kosrae (island; formerly Oualan or Ualan), Micronesia; 05.32°S, 162.98°E.

Remarks: Kittlitz (1830a: No. 58) gave four specimens to the ZIN and additional two specimens were found in SMF (Hartert 1891: 29, Steinbacher 1954: 303). Thus, this species was based on six syntypes, of which we located five, including two in ZIN, two in SMF and one in NHMW (Mlíkovský 2016).

***Dicaeum flavum* Kittlitz**

Dicaeum flavum Kittlitz, 1833b: 15, pl. 19, fig. 2; also figured by Kittlitz (1833a: 3, pl. 3).
Now: *Zosterops meyeni meyeni* Bonaparte, 1850.

Holotype (Fig. 18): ZIN 153161 (Kittlitz 1830a: No. 55), relaxed mount, unsexed, collected in "Manila" (label). This bird was called on the original label "*Dicaeum* n. sp.", then "*Dicaeum flavum*" and still later "*Sylvia palpebrosa*".

Fig. 18. *Dicaeum flavum* Kittlitz, 1833b: holotype ZIN 153161, collected in 1829 at Manila, Philippines.

Type locality: Manila, Luzon (island), Philippines; 14.58°N, 120.97°E.

Remarks: Kittlitz (1830a: No. 55) gave a single specimen to the ZIN and no specimens were found in SMF (cf. Hartert 1891: 29-30, Steinbacher 1954). Thus, this species was based on the holotype, which is still deposited in the ZIN. *Dicaeum flavum* Kittlitz, 1833 is a junior primary homonym of *Dicaeum flavum* Horsfield, 1821.

Rhabdornithidae

Climacteris striolata Kittlitz

Clim[acteris] striolata Kittlitz, 1832b: 5, pl. 6, fig. 2.
Now: *Rhabdornis mystacalis mystacalis* (Temminck, 1825).

Holotype (Fig. 19): ZIN 154878 (Kittlitz 1830a: No. 176), relaxed mount, unsexed, collected by Kittlitz during 13-30 January 1829 at "Manila" (label; date of collection inferred from Kittlitz's itinerary).

Type locality: Manila, Luzon (island), Philippines; 14.58°N, 120.97°E.

Remarks: Kittlitz (1830a: No. 176), who listed this species as "*Climacteris* s. *Philedon mystacalis*" gave a single specimen to the ZIN; no specimens were found in SMF (cf. Hartert 1891: 27). Thus, this species was based on the holotype, which is still deposited in the ZIN.

Pycnonotidae

***Oriolus squamiceps* Kittlitz**

Oriolus squamiceps Kittlitz, 1831: 241, pl. 16; see also Kittlitz (1832b: 8, pl. 12, fig. 1).
Now: *Hypsipetes amaurotis squamiceps* (Kittlitz, 1831).

Syntype: ZIN 135163 (Kittlitz 1830a: No. 87), relaxed mount, unsexed, sad., collected by Kittlitz during 2-15 May 1828 on "Boninsima" (label) (date of collection inferred from Kittlitz's itinerary). Original labels of both ZIN specimens bear an inscription "*Oriol. boninsimensis*", which was replaced with "*Oriol. squamiceps*" on a later date.

Syntype: ZIN 135164 (Kittlitz 1830a: No. 87), mount, unsexed, ad., collected by Kittlitz during 2-15 May 1828in "Boninsima" (label).

Type locality: Chichijima (island), Ogasawara Archipelago, Japan; 27.07°N, 142.21°E.

Remarks: Kittlitz (1830a: No. 87) gave seven specimens to the ZIN and an additional specimen was found in SMF (Hartert 1891: 34, Steinbacher 1954: 302). Thus, this species was based on eight syntypes, of which we located five, including two in ZIN, two in NHMW and one in SMF (Mlíkovský 2016). Anonymous (2014: 491) incorrectly dated *squamiceps* from 1830.

Sturnidae

***Calornis kittlitzi* Finsch & Hartlaub**

Calornis kittlitzi Finsch & Hartlaub, 1867: 109.
Now: *Aplonis opaca opaca* (Kittlitz, 1833b).

Lectotype (herein designated): ZIN 92573, ad., unsexed, collected in "Ualan" (label).

Paralectotype (Fig. 21, right): ZIN 92572. This specimen is also a paralectotype of *Lamprothornis opaca* Kittlitz, 1833b (where see for details).

Paralectotype: ZIN 7192. This specimen is also a paralectotype of *Lamprothornis opaca* Kittlitz, 1833b (where see for details).

Paralectotype: ZIN 7191. This specimen is also a paralectotype of *Lamprothornis opaca* Kittlitz, 1833b (where see for details).

Paralectotype: ZIN uncatalogued (MZALCP 2215). This specimen is also a paralectotype of *Lamprothornis opaca* Kittlitz, 1833b (where see for details).

Remarks: Finsch & Hartlaub (1867: 109) did not specify the number of specimens on which they have based this species, but explicitly included in it a UMB specimen from "Ualan", a specimen from "Puynipet" collected during the Novara Expedition [= the NHMW specimen], and specimens described by Kittlitz (1833b: 11) as "*Lamprotornis columbinus*" (Note that Kittlitz 1833b: 11 referred to this bird as to "*Turdus columbinus* Gm. L. oder *Lamproth. opaca* Lichtenstein"). All of these specimens thus belong

Fig. 19. ***Climacteris striolata*** **Kittlitz, 1832b: holotype ZIN 154878, collected in 1829 at Manila, Philippines.**

to the type series of *Calornis kittlitzi*. For a list of those deposited in NHMW and UMS see Mlíkovský (2016).

The type specimens originated from the islands of Guam, Kosrae and Pohnpei (this paper and Mlíkovský 2016), which are inhabited by three different forms of *Aplonis opaca* (Kittlitz, 1833b) according to Amadon (1962: 79-80): *kurodai* Momiyama (1920: 1), *ponapensis* Taka-Tsukasa & Yamashina (1931: 109) and the nominotypic *opaca* (Kittlitz, 1833b). The taxonomic meaning of *kittlitzi* Finsch & Hartlaub, 1867 thus must be determined by lectotypification. Amadon (1962: 80) restricted the type locality of *kittlitzi* to "Ualan [= Kusaie]", which is an invalid action according to ICZN (1999). SysTax (2012) listed specimen UMB 3930 as a lectotype of *kittlitzi*, which is an invalid action (ICZN 1999). To fix the currently accepted taxonomic meaning of *kittlitzi* (e.g. Amadon 1962: 80), we designate here specimen ZIN 92573 as the lectotype of *Calornis kittlitzi* Finsch & Hartlaub, 1867 (see above for its data). Herewith, *Calornis kittlitzi* Finsch & Hartlaub, 1867 becomes a junior objective synonym of *Aplonis opaca opaca* (Kittlitz, 1833b); thus, it remains in the synonymy in which it was placed by Amadon (1962: 80). The other syntypes become herewith paralectotypes of *Calornis kittlitzi*.

Fig. 20. ***Lamprothornis corvina*** **Kittlitz, 1833b: syntypes ZIN 138167 (left); ZIN 138169 (center) and ZIN 138168 (right), all collected in 1827-1828 on Kosrae, Micronesia.**

Aplonis opaca starlings were common in the Caroline Islands and were repeatedly shipped to Europe soon after Finsch & Hartlaub (1867) described their *kittlitzi* (e.g. Hartlaub 1867: 830, Hartlaub & Finsch 1868a: 7, 1868b: 117, 1872: 100, Finsch 1877: 779).

Lamprothornis corvina **Kittlitz**

Lamprothornis corvina Kittlitz, 1833b: 12, pl. 15, fig. 3; see also Kittlitz (1833a: 7, pl. 9).
Now: *Aplonis corvina* (Kittlitz, 1833b).

Syntype (Fig. 20, left): ZIN 138167 (Kittlitz 1830a: No. 102), relaxed mount, sad., collected by Kittlitz during 8 December 1827 – 1 January 1828 on "Ualan" (label) (date of collection inferred from Kittlitz's itinerary).

Syntype (Fig. 20, center): ZIN 138169 (Kittlitz 1830a: No. 102), relaxed mount, juv., collected by Kittlitz during 8 December 1827 – 1 January 1828 on in "Ualan" (label).

Syntype (Fig. 20, right): ZIN 138168 (Kittlitz 1830a: No. 102), relaxed mount, ad., collected by Kittlitz during 8 December 1827 – 1 January 1828 on in "Ualan" (label).

Syntype: SMF (lost), unsexed, collected by Kittlitz during 8 December 1827 – 1 January 1828 on "Ualan" (Hartert 1891: 75; not found by Steinbacher 1954; date of collection inferred from Kittlitz's itinerary).

Syntype: RMNH 90380, ad. M, collected by Kittlitz during 8 December 1827 – 1 January 1828 on (Mees 1964, Dekker & Quaisser 2006: 48; date of collection inferred from Kittlitz's itinerary).

Syntype: RMNH 90381, skin, juv. "F", collected by Kittlitz during 8 December 1827 – 1 January 1828 on "Kusaie" (Mees 1964, Dekker & Quaisser 2006: 48; date of collection inferred from Kittlitz's itinerary).

Type locality: Kosrae (island; formerly Oualan or Ualan), Micronesia; 05.32°S, 162.98°E.

Remarks: Extinct species. Kittlitz (1830a: No. 102) gave five specimens to the ZIN and an additional specimen was found in SMF (Hartert 1891: 75). Thus, this species was based on six syntypes, of which we located five, including three in ZIN and two in RMNH (Mlíkovský 2016).

Lamprothornis opaca Kittlitz

Lamproth[ornis] opaca "Lichtenstein" Kittlitz, 1833b: 11, pl. 15, fig. 2.
Now: *Aplonis opaca opaca* (Kittlitz, 1833b).

Lectotype (herein designated; Fig. 21, left): ZIN 92573 (Kittlitz 1830a: No. 103), relaxed mount, ad., unsexed, collected by Kittlitz during 8 December 1827 – 1 January 1828 on "Ualan" (label; date of collection inferred from Kittlitz's itinerary).

Paralectotype (Fig. 21, right): ZIN 7192 (Kittlitz 1830a: No. 103), relaxed mount, juv., collected by Kittlitz during 8 December 1827 – 1 January 1828 on "Ualan" (label; date of collection inferred from Kittlitz's itinerary).

Paralectotype: ZIN 7191 (Kittlitz 1830a: No. 103), skin, juv., collected by Kittlitz during Decemeber 1827 – April 1828 in "Ualan, Guaham, Carolin." (label; date of collection inferred from Kittlitz's itinerary). The original label attached to this specimen is similar to those attached to the lectotype ZIN 92572 and the paralectotype ZIN 7192, differing only in that the set of localities (encompassing all localities where Kittlitz collected specimens of his *opaca*) was not crossed out and replaced with a single locality. Also, this specimen is a skin, not a relaxed mount unlike the other two ZIN specimens.

Paralectotype: ZIN 7192 (Kittlitz 1830a: No. 103), relaxed mount, unsexed, ad., collected by Kittlitz during 1-20 March 1828 on "Guaham" (label; date of collection inferred from Kittlitz's itinerary).

Paralectotype: ZIN uncatalogued (MZALCP 2215, Kittlitz 1830a: No. 103), mount, ad., collected by Kittlitz during December 1827 – April 1828 on "Ualan, Guaham, Carolin." [crossed out and replaced with] "Carol. Ins." (label) (date of collection inferred from Kittlitz's itinerary).

Type locality: Kosrae (island; formerly Oualan or Ualan), Micronesia; 05.32°S, 162.98°E.

Remarks: Kittitz (1830a: No. 103) gave 11 specimens to the ZIN and additional two specimens were found in SMF (Hartert 1891: 75). Thus, this species was based on 13 specimens, of which we located eight, including five in ZIN and three in RMNH (Mlíkovský 2016). Dekker & Quaisser (2006: 50) listed the RMNH specimen as a holotype of *opaca*, which is incorrect, because Kittlitz (1833b) clearly based the species on a series of specimens (Kittlitz 1830a: No. 103) and mere listing of the RMNH specimen as the holotype by Dekker & Quaisser (2006) has no nomenclatural consequences (ICZN 1999).

This species has been called *Aplonis kittlitzi* Finsch & Hartlaub, 1867, until Hartert (1891: 75, footnote) and Oberholser (1917: 59, footnote) suggested that *Lamprothornis opaca* Kittlitz, 1833b has priority and subsequent authors adopted their view (e.g. C.H. Townsend & Wetmore 1919: 219, Baker 1951: 386, Amadon 1962: 79). Kittlitz (1833b: 11) introduced *opaca* in a rather confusing manner, giving it as an alternative name for *Turdus columbinus* J.F. Gmelin (1789: 836). However, he can be accepted as the author of *Lamprothornis opaca*.

Kittlitz (1833b) based *opaca* on specimens from the Marianas and Caroline Islands, which are now believed to be inhabited by different subspecies of *Aplonis opaca* (Amadon 1962: 79-80, Feare & Craig 1999, Anonymous 2014: 582). The type series of *opaca* thus includes specimens from different taxa. Kittlitz's *opaca* is used for the form inhabiting the island of Kosrae as a rule (e.g. Momiyama 1922, Amadon 1962: 80, Feare & Craig 1999, Anonymous 2014: 582). To fix its taxonomic meaning, we designate herein specimen ZIN 92573 from "Ualan" [= Kosrae] as the lectotype of *Lamprothornis opaca* Kittlitz, 1833b. Herewith, other specimens from the type series become paralectotypes.

Corvidae

Corvus solitarius Kittlitz

Corvus solitarius Kittlitz, 1836a: 247. [Nomen nudum; no description or indication.]
Corvus solitarius Kittlitz, 1836b: 305. [Nomen nudum; no description or indication.]
Corvus solitarius Kittlitz, 1858b: 143. [Nomen nudum; no description or indication.]

Remarks: Kittlitz (1830a: No. 18) gave a single specimen from "Gauaham" to the ZIN and no additional specimens were found in SMF (cf. Hartert 1891: 84-85). This specimen is still deposited in the ZIN (ZIN 6807), but it has no type status, because *Corvus solitarius* Kittlitz is a nomen nudum.

Fig. 21. ***Lamprothornis opaca*** **Kittlitz, 1833b: lectotype ZIN 92573 (left), collected in 1827-1828 on Kosrae, Micronesia, and paralectotype ZIN 7192 (right), collected in 1828 on Guam, Mariana Islands.**

Turdidae

Turdus terrestris Kittlitz

Turdus terrestris Kittlitz, 1831: 244, pl. 17.
Now: *Zoothera terrestris* (Kittlitz, 1831).

Syntype (Fig. 22, right): ZIN 152611 (Kittlitz 1830a: No. 98), relaxed mount, ad, unsexed, collected by Kittlitz during 2-15 May 1828 at “Boninsima” (date of collection inferred from Kittlitz’s itinerary). Original label missing.

Syntype (Fig. 22, left): ZIN 138170 (Kittlitz 1830a: No. 98), relaxed mount, ad, unsexed, collected by Kittlitz during 2-15 May 1828 on "Boninsima" (label) (date of collection inferred from Kittlitz's itinerary).

Type locality: Chichijima (island), Ogasawara Archipelago, Japan; 27.07°N, 142.21°E.

Remarks: Extinct species. Kittlitz (1830a: No. 98) gave six specimens to the ZIN and an additional specimen was found in SMF (Hartert 1891: 6, Steinbacher 1954: 303). Thus, this species was based on seven syntypes, not four or five as speculated by Nejfel'dt (1978: 108). We located six of these specimens, including two in ZIN, and one each in NHMW, NMP, RMNH and SMF (Mlíkovský 2016). Anonymous (2014: 616) incorrectly dated *terrestris* from 1830.

***Turdus luzoniensis* Kittlitz**

Turdus luzoniensis Kittlitz, 1832b: 7, pl. 11, fig. 2; see also Kittlitz (1833a: 5, pl. 7).
Now: *Kittacicnla luzoniensis luzoniensis* (Kittlitz, 1832).

Holotype (not found): ZIN (Kittlitz 1830a: No. 47): specimen collected by Kittlitz during 13-30 January 1829 at "Manila" (Kittlitz 1830a: No. 47; date of collection inferred from Kittlitz's itinerary).

Type locality: Manila, Luzon (island), Philippines; 14.58°N, 120.97°E.

Remarks: Kittlitz (1830a: No. 47) gave a single specimen to the ZIN and no specimens were found in SMF (cf. Hartert 1891: 9). Thus, this species was based on the holotype, which we were not able to locate.

Paridae

***Parus sitchensis* Kittlitz**

Parus sitchensis Kittlitz, 1836a: 221. [Nomen nudum; no description or indication.]
Parus Sitchensis Kittlitz, 1836b: 268. [Nomen nudum; no description or indication.]
Parus sitchensis Kittlitz, 1853: 349. [Nomen nudum; no description or indication.]
Parus sitchensis Kittlitz, 1858a: 200. [Nomen nudum; no description or indication.]

Remarks: Kittlitz (1830a: No. 35) gave three specimens of "*Parus sibiricus* var." from Sitka to the ZIN, of which we located none. *Parus sitchensis* is a nomen nudum, so that these missing specimens have no type status.

Parulidae

***Sylvicola regulus* Kittlitz**

Sylv[icola] regulus Kittlitz, 1836a:.221. [Nomen nudum; no description or indication.]
S[ylvicola] regulus Kittlitz, 1836b: 267. [Nomen nudum; no description or indication.]
Sylvicola Regulus Kittlitz, 1858a: 211.
Now: *Dendroica townsendi* (Townsend, 1837).

Holotype: ZIN 154291 (Kittlitz 1830a: No. 40), F, first year bird in fresh autumn plumage, collected by Kittlitz during 24 June – 31 July 1827 at "Sitcha" (date of collection inferred from Kittlitz's itinerary).

Type locality: Sitka, Baranof Island, Alaska, USA; 57.05°N, 135.34°W.

Fig. 22. ***Turdus terrestris*** **Kittlitz, 1831: syntypes ZIN 152611 (right) and ZIN 138170 (left), both collected in 1828 on Chichijima, Japan.**

Remarks: Kittlitz (1858a: 211) described this form on the basis of several specimens, but remarked that some were lost and that most of the remaining were juveniles. However, he did not use the name *Sylvicola regulus* in his list (Kittlitz 1830a) which makes, together with the rather imperfect description of the bird, its taxonomic identificat-

ion difficult. Kittlitz (1830a: Nos. 39-41) brought from Sitka three "species", which might have been his "*Sylvicola regulus*", including "*Sylvia celata*" (one specimen; ZIN 154650), "*Sylvia petasodes* Licht." (two specimens; not found), and "*Sylvia melanocausta*" (one specimen; ZIN 154291)[11]. Kittlitz (1858a: 211-212) did not mention *petasodes*, but clearly distunguished between *celata* and *regulus*. This indicates that Kittlitz's (1836a,b, 1858a) *Sylvicola regulus* is the "*Sylvia melanocausta*" of his list (Kittlitz 1830a: No. 40), as was tentatively suggested already by Hartlaub (in Bolle 1859: 50). *Sylvia melanocausta* (unpublished name) is a synonym of *Dendroica townsendi* (Townsend, 1837) (Sharpe 1885:299). Kittlitz's (1858a: 211) description of the habitat and behavior of *regulus* also point toward *Dendroica townsendi*. Thus, we conclude that ZIN 154291 is the holotype of *Sylvicola regulus* of Kittlitz and that *Sylvicola regulus* Kittlitz, 1858a is a junior subjective synonym of *Dendroica townsendi* (Townsend, 1837).

Dicaeidae

***Nectarinia pygmea* Kittlitz**

Nectarinia pygmea Kittlitz, 1833a: 2, pl. 2.
Now: *Dicaeum pygmaeum pygmaeum* (Kittlitz, 1833a).

Syntype: ZIN 152818 (Kittlitz 1830a: No. 56), skin, ad. M, collected by Kittlitz during 13-30 January 1829 at "Manila" (label) /date of collection inferred from Kittlitz's itinerary).

Type locality: Manila, Luzon (island), Philippines; 14.58°N, 120.97°E.

Remarks: Kittlitz (1830a: No. 56) gave two specimen to the ZIN and no specimens were found in SMF (cf. Hartert 1891, Steinbacher 1954). Thus, this species was based on two specimens, of which we located one. This skin is in a bad condition.

Estrildidae

***Fringilla trichroa* Kittlitz**

Fringilla trichroa Kittlitz, 1833a: 8, pl. 10.
Now: *Erythrura trichroa trichroa* (Kittlitz, 1833a).

Syntype: ZIN 67949 (Kittlitz 1830a: No. 161), relaxed mount, juv., collected by Kittlitz during 8 December 1827 – 1 January 1828 on "Ualan" (label; date of collection inferred from Kittlitz's ittinerary).

Syntype: ZIN 67950 (Kittlitz 1830a: No. 161), relaxed mount, ad., collected by Kittlitz during 8 December 1827 – 1 January 1828 in "Ualan" (label; date of collection inferred from Kittlitz's itinerary).

Syntype: ZIN 67951 (Kittlitz 1830a: No. 161), relaxed mount, ad., collected by Kittlitz during 8 December 1827 – 1 January 1828 in "Ualan" (label; date of collection inferred from Kittlitz's itinerary).

11 The genus *Sylvicola* was created by Swainson (1827a: 433, 1827b: 169) for a group of New World warblers (family Parulidae).

Syntype: SMF 16736, unsexed, collected by Kittlitz on 21 December 1827 on "Ualan" (Hartert 1891: 64, Steinbacher 1954: 303).

Syntype: SMF 16737, unsexed, collected by Kittlitz on 21 December 1827 on "Ualan" (Hartert 1891: 64, Steinbacher 1954: 303).

Type locality: Kosrae (island; formerly Oualan or Ualan), Micronesia; 05.32°S, 162.98°E.

Remarks: Kittlitz (1830a: No. 161) gave three specimens to the ZIN and two additional specimens were found in SMF (Hartert 1891: 64, Steinbacher 1954: 303). Thus, this species was based on five syntypes, of which we located all five (for those in SMF see Mlíkovský 2016). Original labels attached to each of the three ZIN specimens bear a name "*Fring. ualanensis*" which was replaced with "*Fring. trichroa*". Kittlitz (1830a: No. 161) listed this bird as *Fringilla trichroa*.

Motacillidae

***Anthus berthelotii* Bolle**

Anthus berthelotii Bolle, 1862: 357.
Now: *Anthus berthelotii berthelotii* Bolle, 1862.

Syntype: ZIN 93511, unsexed, collected in "Teneriffe" (label). Originally labeled as "*Anthus campestris*?" (Kittlitz 1830: No. 113; original label).

Remarks: Bolle (1862) did not specify the number of specimens upon which he based this species, but explicitly (p. 357) included in it the specimen collected by Kittlitz on Teneriffe. Another syntype is deposited in ZMB (Mlíkovský et al. 2013).

***Motacilla lugens* Kittlitz**

Motacilla lugens "Pallas" Kittlitz, 1833b: 16, pl. 21, fig. 1.
Now: *Motacilla alba ocularis* Swinhoe, 1860.

Lectotype (herein designated; Fig. 23): ZIN 145678 (Kittlitz 1830a: No. 110), relaxed mount, juv. (autumnal plumage), collected by Kittlitz during 25 September – 1 November 1827 or during 9 June – 11 November 1828 in "Kamchatka" (date of collection inferred from Kittlitz's itinerary).

Paralectotype: SMF 16740, unsexed, collected by Kittlitz on 28 September 1827 in "Kamtschatka" (Steinbacher 1954: 303).

Type locality: southern Kamchatka (south of 56.5°N), Kamchatka, Russia; ca. 51-56.5°N, 156-161°E.

Remarks: Kittlitz (1830a: No. 110) gave seven specimens to the ZIN and an additional specimen was found in SMF (Hartert 1891: 44, Steinbacher 1954: 303). Thus, this species was based on eight syntypes, of which we located two: one in ZIN and one in SMF (Mlíkovský 2016).

Kittlitz (1832: 16) combined description of gray-backed birds (known as *Motacilla alba ocularis* Swinhoe, 1860) and black-backed birds (known as *Motacilla alba lugens* Gloger, 1829), believing that the color differences are due to molting. His pl. 21, fig. 1 (Kittlitz 1832) shows an adult *lugens*, while the only surviving type specimen

in the ZIN is a juvenile *ocularis*. We thus designate herein this surviving specimen as the lectotype of *lugens* Kittlitz and place herewith *Motacilla lugens* Kittlitz, 1832 into the synonymy of *Motacilla ocularis* Swinhoe, 1860. Although *lugens* Kittlitz has precedence over *ocularis* Swinhoe, it cannot be used, because it is a junior primary homonym of *Motacilla lugens* Gloger (1829: col. 771). Thus, the name of *Motacilla alba ocularis* remains unchanged.

Icteridae

***Sturnus aterrimus* Kittlitz**

Sturnus aterrimus Kittlitz, 1835: 467, pl. 2.
Now: *Curaeus curaeus curaeus* (Molina, 1782)

Lectotype (designated by Chrostowski 1921: 18; Fig. 24, left): ZIN 7536 (Kittlitz 180: No. 124), unsexed = M (according to its size), collected on 31 March 1827 (Kittlitz 1858a: 153, Chrostowski 1921: 18-19) in "Chili" (label) = at "Valparaiso" (Chrostowski 1921: 18-19).

Paralectotype (Fig. 24, right): ZIN 7537 (Kittlitz 1830a: No. 124), all data the same as for the lectotype.

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W.

Remarks: Kittlitz (1830a: No. 124) gave to the ZIN two specimens and no specimens were found in SMF (cf. Hartert 1891: 72). Thus, this species was based on two specimens, both of which are still present in the ZIN. Kittlitz's original label attached to both type specimens show that he intended to call the bird "*Sturnus nigerrimus*", but later changed his mind and called it "*Sturnus aterrimus*". Chrostowski (1921: 18) designated a lectotype of *aterrimus*, which we identified using measurements given by him.

Fringillidae

***Fringilla kittlitzi* Seebohm**

Fringilla kittlitzi Seebohm, 1890: 101.
Now: *Chloris sinica kittlitzi* (Seebohm).

Syntype: ZIN 42243 (Kittlitz 1830a: No. 163), M, collected in during 2-15 May 1828 on "Bonins." (label; date of collection inferred from Kittlitz's itinerary).

Remarks: Seebohm (1890: 101) did not specify the size of the type series, but explicitly included in his *kittlitzi* five specimens collected by Holst in 1889 and all specimens collected by Kittlitz in 1828 on the "Bonin" islands, all of which are thus syntypes of *kittlizi*. Kittlitz (1830: No. 163) called this species *Fringilla chloris* and said that he gave to the ZIN five specimens of this species from "Bonins." and "Kamtsch.", without having specified how many were from the Bonin Islands and how many were from Kamchatka. We located a single Kittlitz specimen from the Bonin Islands in the ZIN and all five Holst specimens in NHMUK (Mlíkovský 2016).

Fig. 23. ***Motacilla lugens*** **Kittlitz, 1833b: lectotype ZIN 145678, collected in 1827 or 1828 in southern Kamchatka, Russia.**

Fringilla Papa Kittlitz

Fringilla Papa Kittlitz, 1831: 239, pl. 15; see also Kittlitz (1833c: 24, pl. 32, fig. 2).

Now: *Chaunoproctus ferreorostris* (Vigors, 1829).

Syntype (Fig. 25, left): ZIN 154094 (Kittlitz 1830a: No. 162), ad. M, collected by Kittlitz on 2-15 May 1828 on “Boninsima”.

Syntype (Fig. 25, center): ZIN 154096 (Kittlitz 1830a: No. 162), ad. F, collected by Kittlitz on 2-15 May 1828 on “Boninsima”.

Syntype (Fig. 25, right): ZIN 154095 (Kittlitz 1830a: No. 162), first year M, collected by Kittlitz on 2-15 May 1828 on “Boninsima”.

Type locality: Chichijima (island), Ogasawara Archipelago, Japan; 27.07°N, 142.21°E.

Fig. 24. ***Sturnus aterrimus*** **Kittlitz, 1835: lectotype ZIN 7536 (left) and paralectotype ZIN 7537 (right), both collected in 1827 at Valparaíso, Chile.**

Fig. 25. ***Fringilla papa*** **Kittlitz, 1831: syntypes ZIN 154094 (left), ZIN 154096 (center) and ZIN 154095 (right), all collected in 1828 on Chichijima, Japan.**

Remarks: Extinct species. Kittlitz (1830a: No. 162) gave five specimens to the ZIN and additional two specimens were found in SMF (Hartert 1891: 55). Thus, this species would have been based on seven specimens. However, we located eight supposed Kittlitz specimens. Of the two SMF specimens, one is still in SMF and the other one came to AMNH. Of the five ZIN specimens, three are still in ZIN and two came to the RMNH. The ZMB specimens is supernumerary (see Mlíkovský 2016 for a discussion of this specimen and a list of specimens deposited in museums other than ZIN).

Fringilla chloris parva **Kittlitz**

Fringilla chloris var. *parva* Kittlitz, 1836a: 250. [Nomen nudum; no description or indication.]
Fringilla chloris (var. *parva*) Kittlitz, 1836b: 310. [Nomen nudum; no descriptin or indication.]
Now: *Chloris sinica kittlitzi* (Seebohm, 1890).

Fig. 26. ***Fringilla alaudina*** **Kittlitz, 1833b: holotype ZIN 74671, collected in 1827 at Valparaíso, Chile.**

Emberizidae

Fringilla alaudina Kittlitz

Fringilla alaudina Kittlitz, 1833b: 18, pl. 23, fig. 2.

Now: *Rhopospina alaudina alaudina* (Kittlitz, 1833).

Holotype (Fig. 26): ZIN 74671 (Kittlitz 1830a: No. 144), relaxed mount, sad. M, collected by Kittlitz on 27 March 1827 or 10 April 1827 in "Chili" (label) = at "Valparaiso" (Kittlitz 1858a: 135, Chrostowski 1921: 20).

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W.

Remarks: Kittlitz (1830a: No. 144) gave a single specimen to the ZIN and no specimens were found in SMF (cf. Hartert 1891: 59, Steinbacher 1954). Thus, this species was based on the holotype, which is still deposited in the ZIN. Kittlitz (1858a) collected a specimen on 27 March 1828 (p. 135) and two specimens on 10 April 1827 (p. 178). It is unknown on which date he collected the specimen which he brought with him to Europe.

Fig. 27. ***Fringilla fruticeti*** **Kittlitz, 1833b: holotype ZIN 74669, collected in 1827 at Valparaíso, Chile.**

Fringilla fruticeti **Kittlitz**

Fringilla fruticeti Kittlitz, 1833b: 18, pl. 23, fig. 1.
Now: *Rhopospina fruticeti fruticeti* (Kittlitz, 1833).

Holotype (Fig. 27): ZIN 74669 (Kittlitz 1830a: No. 145), relaxed mount, sad. M, collected by Kittlitz on 31 March 1827 (Chrostowski 1921: 21) in "Chili" (label) = at "Valparaiso" (Chrostowski 1921: 21).

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W.

Remarks: An undated specimen from "Prévost" (ZIN 74668) was labeled as "cotypus" long ago by an unknown hand. Florent Prévost (1794-1870) was a French ornithologist working at MNHN. Thus, this specimen was probably received from MNHN on an unknown date. It is dataless and there is no evidence that Kittlitz saw it or that it belongs to the type series of *fruticeti*.

Fringilla arvensis **Kittlitz**

Fringilla arvensis Kittlitz, 1835: 470, pl. 4.
Now: *Sicalis luteola luteiventris* (Meyen, 1834)

Holotype: ZIN 57408 (Kittlitz 1830a: No. 154), relaxed mount, unsexed (label) = juv. M, freshly molted (our determination), collected by Kittlitz on 11 April 1827 in "Chili" (label) = "Valparaiso" (Kittlitz 1858a: 172, Chrostowski 1921: 19-20). On the original label, this bird was first called "*Fring.* n. sp." and then "*Serinus gracilis*".

Type locality: Valparaíso, Chile; 33.05°S, 71.62°W.

Remarks: Kittlitz (1830a: No. 154) gave a single specimen to the ZIN and no specimens were found in SMF (cf. Hartert 1891: 60, Steinbacher 1954). Thus, the ZIN specimen is the holotype of this species. We restudied the specimen and found that it represents a *Sicalis luteola luteiventris* (Meyen, 1834).

***Zonotrichia musica* Kittlitz**

Emberiza musica Kittlitz, 1836a: 255. [Nomen nudum; no description or indication.]
Emberiza musica Kittlitz, 1836b: 318. [Nomen nudum; no description or indication.]
Z[onotrichia] musica Kittlitz, 1858b: 201.
Now: *Schoeniclus variabilis musicus* (Kittlitz, 1858b).

Holotype: ZIN 72501 (Kittitz 1830a: No. 142), ad. M, collected by Kittlitz on 24 June 1828 (Kittlitz 1858b: 201) in "Kamtsch." (label) = "meždu Petropavlovskom i sel. Avača" (later inscription on Kittlitz's original label)

Type locality: Petropavlovsk-Kamčatskij, Kamchatka, Russia; 53.02°N, 158.65°E.

Remarks: Kittlitz (1830a: No. 142) gave a single specimen to the ZIN and no specimen was found in SMF (cf. Hartert 1891). Thus, this species was based on the holotype, which is still deposited in ZIN. Kittlitz (1858b: 201) mentioned that he collected this species also in "Herbst" (autumn) of 1827 or 1828, but the identity of this specimen is unclear, it was probably not even preserved (see Kittlitz 1858b: 201) and we thus do not consider it part of the type series.

***Emberiza* (*Zonotrichia*) *gracilis* Kittlitz**

Emberiza (*Zonotrichia*) *gracilis* Kittlitz, 1858a: 199.
Now: *Melospiza lincolnii gracilis* (Kittlitz, 1858a).

Syntype: ZIN 74827 (Kittlitz 1830a: No. 135), relaxed mount, juv., collected by Kittlitz during 24 June – 31 July 1827 at "Sitcha" (label; date of collection inferred from Kittlitz's itinerary).

Syntype: ZIN 74828 (Kittlitz 1830a: No. 135), relaxed mount, ad., collected by Kittlitz during 24 June – 31 July 1827 at "Sitcha" (label; date of collection inferred from Kittlitz's itinerary).

Syntype: ZIN 74829 (Kittlitz 1830a: No. 135), relaxed mount, ad., collected by Kittlitz during 24 June – 31 July 1827 at "Sitcha" (label; date of collection inferred from Kittlitz's itinerary).

Type locality: Sitka, Baranof Island, Alaska, USA; 57.05°N, 135.34°W.

Remarks: Kittlitz (1830a: No. 135) gave three specimens to the ZIN and no specimens were found in SMF (cf. Hartert 1891). Thus, this species was based on three syntypes, all of which are still deposited in the ZIN. Kittlitz (1830a: No. 135, 1858a: 199) called

this species "*Fringilla gracilis*". Original labels attached to all three syntypes call the bird "*Emberiza* n. sp.", which was at a later date (but still long ago) replaced with "*Emberiza spinoletta*". This name appears also in Brandt's unpublished *Icones* (Finsch 1872: 20, 46), but it never was published. For the taxonomic identity of *gracilis* see Oberholser (1906: 42).

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