



First historical records of birds from North Korea: the Kalinowski collection of 1887–1888

Jiří Mlíkovský

*Department of Zoology, National Museum, Václavské náměstí 68, CZ-115 79 Praha 1, Czech Republic;
e-mail: jiri_mlikovsky@nm.cz*

Abstract. First birds were collected in the territory of the modern-day North Korea in 1887–1888 by Jan Kalinowski. I restudied the surviving part of the Kalinowski collection in the Museum and Institute of Zoology of the Polish Academy of Sciences. The restudy of specimens and a review of the data published by Taczanowski in 1888–1890 showed that Kalinowski collected 17 species of birds in the territory of the modern-day North Korea. The collection included species now on the verge of extinction, such as *Nipponia nippon* (Threskiornithidae) or *Dryocopus javensis richardsi* (Picidae), and species whose taxonomic status remains unresolved (*Haliaeetus pelagicus niger*; Accipitridae).

Key-words. Aves, Korean Peninsula, Jan Kalinowski, Władysław Taczanowski, 19th century.

INTRODUCTION

The Democratic People's Republic of Korea (abbreviated as 'North Korea' throughout this paper) belongs among the ornithologically least known countries. Tomek (1999, 2002) summarized available records of local avifauna. Sweet et al. (2007) added data from the nearly forgotten Hall Expedition of 1903. Here I add records made in the territory of modern-day North Korea in 1887–1888 by Kalinowski, the first ornithologist who provided data on the birds of this territory.

Jan Kalinowski (1860–1941), a famous Polish bird collector (Brzęk 1959, Mlíkovský 2007b, 2009), explored the nature of the Korean Peninsula from mid-1885 to mid-1888 on behalf of Count Branicki of Poland (Brzęk 1959, Mlíkovský 2007b, Wadas 2009). The resulting collections were described by Taczanowski (1888, 1889, 1890). Most of Kalinowski's specimens are deposited in the Museum and Institute of Zoology of the Polish Academy of Sciences (MIZ), Warszawa, Poland (Mlíkovský 2007b). However, an unknown number of specimens were exchanged by Taczanowski with other bird collectors, and further specimens were lost due to historical reasons (see Mlíkovský 2007a,b, 2010a). Tomek (1999, 2002) knew Taczanowski's papers based on Kalinowski's collections, but overlooked that Kalinowski's specimens accompanied with additional data are deposited in the MIZ.

Kalinowski spent most of his time collecting at Seoul, in southern Korea, but he went three times to northern Korea for collecting. He collected at Wonsan in January and March 1887, at Sangnyong-ni in March 1887 and during his return-way from Seoul to Vladivostok, Russia, in February–March 1888, at Wonsan, Namjigyong and Sinp’yong). See ‘Systematic list’ for exact dates.

Below I present full list of Kalinowski’s records from the territory of DPRK, although this will exclude specimens, if any, which were neither discussed by Taczanowski, nor retained in MIZ. In 2007–2010, I restudied specimens deposited in the MIZ, checking their taxonomic identity and primary data on their provenance from Kalinowski’s original labels. Data on specimens which were not found (labeled below as ‘lost’) were derived from Taczanowski’s papers cited below. Taczanowski (1888, 1889, 1890) was often un-specific as regards exact provenance of specimens. Using label data I provide exact information on dates and localities, where possible. Tomek (1999, 2002) extracted data from Taczanowski’s (1888, 1889, 1890) publications and thus omitted some Kalinowski’s records from northern Korea; these omissions are indicated below.

Korean localities mentioned in the present paper are as follows (alternative spellings used by Kalinowski and Taczanowski are given in parentheses; decimal degrees are used to describe geographic coordinates): Namjigyong (Namdzigjo) [39.50°N, 127.24°E]; Sangnyong-ni (Siongno) [38.23°N, 126.37°E]; Sinp’yong (Tsiempion) [38.90°N, 126.75°E]; and Wonsan (Ginzan) [39.17°N, 127.46°E]. Spelling of toponyms follows NGA (2011), but diacritical marks were omitted. I identified the localities using Kalinowski’s itinerary (reconstructed from his label data and from notes on the localities in Taczanowski 1888, 1889, 1890).

The nomenclature and sequence of species within families were adopted from Dickinson (2003); the standard Peters’s sequence of families is used. Kalinowski went to Korea from Russia which used the Julian calendar at that time (as officially did Kalinowski’s native Poland, then a part of the Russian Empire). Korea used a lunisolar calendar in the 1880s (Mlíkovský 2010b, Anonymous 2011). Having thus no reason for switching to a Gregorian calendar (as used in modern-day Europe), Kalinowski presumably continued to use the Julian calendar in Korea (Mlíkovský 2010b). I thus recalculated Kalinowski’s Julian dates (Old Style; OS) to Gregorian dates (New Style; NS) by adding 12 days to the OS dates (Mlíkovský 2010b), and I used additional data on Kalinowski’s itinerary in interpreting more general terms, such as “March”. Taczanowski (1888, 1889, 1890) used Kalinowski’s field dates without commenting upon the calendar supporting them, as was usual in his time. Tomek (1999, 2002) assumed that Taczanowski and Kalinowski used Gregorian calendar without any evidence for this (T. Tomek, in litt. 2011).

SYSTEMATIC LIST

Threskiornithidae

Nipponia nippon (Temminck, 1835): Collected at Wonsan in December 1886 (not 1887 as given by Tomek 1999: 45) and in January 1887 (not 1888 as given by Tomek 1999: 45) (Taczanowski 1888: 611). All specimens were lost.

Anatidae

Cygnus olor (J.F. Gmelin, 1789): A juvenile female (lost) was collected at Wonsan on 27 February 1888 [= 9 March 1888 NS] (Taczanowski 1889: 458).

Anas falcata Georgi, 1775: An adult male (lost) was collected at Wonsan on an unknown date (Taczanowski 1889: 458).

Melanitta nigra (Linnaeus, 1758): A female (lost) was collected at Wonsan in “December” [= December 1886 or January 1887 NS] (Taczanowski 1888: 611). Tomek (1999: 72) incorrectly said that the specimen was collected in December 1887.

Bucephala clangula (Linnaeus, 1758): A male (MIZ 31570) was collected at Wonsan on 29 December 1886 [= 9 January 1887 NS] (Taczanowski 1888: 611 sub *Clangula glaucion*). A female, also collected in “December” [= January 1887] at Wonsan (Taczanowski 1888: 611) is lost. Tomek (1999: 73) incorrectly said that the birds were collected on 2 December 1887.

Accipitridae

Haliaeetus albicilla (Linnaeus, 1758): A juvenile (lost) was collected on an unknown date [= January to March 1887] at Wonsan (Taczanowski 1889: 453). Tomek (1999: 80) incorrectly said that the bird was collected in Hamgyong South Province.

Haliaeetus pelagicus (Pallas, 1811): An adult female (lost) was collected at Sinp’yong on 28 February 1888 [= 8 March 1888 NS] (Taczanowski 1889: 451-453). This specimen is the holotype of *Haliaeetus branickii* Taczanowski, 1889 (Mlíkovský 2007b), a name given to the so-called ‘dark form’ of *H. pelagicus*, currently known under its older name *niger*, given to it by Heude (1887). Dark-colored individuals of *H. pelagicus*, which were repeatedly recorded from the Korean Peninsula from 1887 to 1929 (Austin 1948: 82-83), are treated as a color mutation of *H. pelagicus* (e.g. Ferguson-Lees & Christie 2001: 408) or recognized as its subspecies (e.g. Stresemann & Amadon 1979: 302, Dickinson 2003: 101). A recent record of a captive bird which molted into the dark plumage was published in support of the former view (Kaiser 2011), but the author did not explain why this is not a melanistic individual, well known from various raptor species (e.g. Galeotti et al. 2003, Galeotti & Rubolini 2004, Roulin & Wink 2004, Clark & Schmitt 2006, Dale 2006, Thomsett 2007, Galván et al. 2010, Hull et al. 2010), and did not discuss morphological characters said to distinguish ‘*niger*’ from proper ‘*pelagicus*’ by Taczanowski (1889). Kalinowski (in Taczanowski 1889), who knew ‘standard-colored’ *H. pelagicus* from Kamchatka very well, stressed that dark-colored Sea Eagles of Korea differ from them not only in color and Taczanowski (1889) described differences between ‘standard-colored’ and ‘dark-colored’ birds in bill shape. These observations and the range-restricted occurrence of ‘dark-colored’ birds support taxonomic distinction of *niger*. Moreover, Tomek (1999: 81-82) noted that all ‘*H. pelagicus*’ recorded in the Korean Peninsula during breeding season were dark-colored. The status of the “dark form” from the Korean Peninsula thus remains unresolved.

Phasianidae

Coturnix japonica Temminck & Schlegel, 1849: A bird (lost) was collected at Sangnyong-ni in “March” [= late March 1887 NS] (Taczanowski 1888: 610).

Otididae

Otis tarda Linnaeus, 1758: An adult female (lost) was collected at Wonsan on 27 February 1887 [= 6 March 1887 NS] (Taczanowski 1889: 456 sub *Otis dybowskii*).

Laridae

Larus argentatus complex: A male (lost) was collected at Wonsan on 16 February [= 28 February 1888 NS] (Taczanowski 1889: 458). The taxonomy of the Herring Gull complex is in flux (Liebers et al. 2001, 2004, Liebers-Helbig et al. 2010, Sternkopf et al. 2010). As the specimen is lost I leave it unidentified within the species complex.

Larus saundersi (Swinhoe, 1871): A female (MIZ 33166) was collected at Wonsan on 16 February 1888 [= 28 February 1888] (Taczanowski 1889: 458 sub *Chroicocephalus saundersi*).

Strigidae

Strix aluco Linnaeus, 1758: A male (MIZ 3671) and a female (MIZ 3674) were collected at Sangnyong-ni on 4 March 1887 [= 16 March 1887 NS] and 7 March 1887 [= 19 March 1887 NS], respectively (Taczanowski 1888: 599 sub *Syrnium nivicolium*). These records were not listed by Tomek (1999).

Picidae

Dryocopus javensis (Horsfield, 1821): A female (lost) was collected at Sangnyong-ni on 28 February 1887 [= 12 March 1887 NS] (Taczanowski 1888: 607-608 sub *Thriponax kalinowskii*). This record was not listed by Tomek (1999). This specimen is a (lost) syntype of *Thriponax kalinowskii* Taczanowski, 1888 (Mlíkovský 2007b: 51), a junior synonym of *Dryocopus javensis richardsi* (Tristram). The latter subspecies is a nearly-extinct, range-restricted endemic to central part of the Korean Peninsula (Tomek 1999: 208-209, Brazil 2009: 286). Formerly it inhabited also the twin islands of Tsushima (ca. 34.42°N, 129.33°E; Tristram 1879, Ijima 1891, Austin & Kuroda 1953), where it became extinct since (Brazil 1991, Winkler & Christie 2002).

Laniidae

Lanius sphenocercus Cabanis, 1873: A female (lost) was collected at Sangnyong-ni in “February” [= mid-March 1887 NS] (Taczanowski 1888: 605). The locality was identified by elimination. Taczanowski (1888: 605) listed two males and a female collected at Seoul and Sangnyong-ni in December and February. Both males are still present in the MIZ and both were collected in December at Seoul according to labels attached to the specimens. Hence, the female was collected as written above. This record was not listed by Tomek (2002).

Corvidae

Cyanopica cyanus (Pallas, 1776): A male (MIZ 5593) and a female (MIZ 5583) were collected at Sangnyong-ni on 13 March 1887 [= 25 March 1887 NS] and 2 March 1887 [= 14 March 1887 NS], respectively (Taczanowski 1888: 605 sub *Cyanopolius cyanus*). These records were not listed by Tomek (2002).

Corvus dauuricus Pallas, 1776: A male (lost) and a female (MIZ 4064) were collected at Sangnyong-ni in "March" [= March 1887 NS] (Taczanowski 1888: 605 sub *Monedula daurica*). These records were not listed by Tomek (2002).

Emberizidae

Emberiza pallasi (Cabanis, 1851): Three males and a female were collected at Sangnyong-ni in "March" [= March 1887 NS] (Taczanowski 1888: 606 sub *Schoenicola polaris*), of which only the male collected on 6 March 1887 [= 18 March 1887 NS] survived in the MIZ. These records were not listed by Tomek (2002).

DISCUSSION

Kalinowski collected in the modern-day North Korea 17 bird species (there is no evidence that he has sent his specimens to other persons than Taczanowski and there is no evidence that Taczanowski omitted some species from his list). All of them were recorded for the first time from the territory of modern-day North Korea (cf. Austin 1948, Fiebig 1993, 1995, Tomek 1999, 2002), which is not surprising because Kalinowski was the first collector of birds in this territory (cf. Austin 1948, Tomek 1999). All records originated from winter months (between December and March) and cannot add to the pre-1948 breeding avifauna of the Korean Peninsula reconstructed by Duckworth & Moores (2008).

Although small in the number of specimens, the Kalinowski collection of birds shows that the avifauna of the northern part of the Korean Peninsula underwent considerable change since the Kalinowski's times.

ACKNOWLEDGMENTS

I thank Dominika Mierzwa (Museum and Institute of Zoology, Polish Academy of Sciences, Warszawa, Poland) for the permission to work in collections under her care, and J. William Duckworth (Vientiane, Laos), Tereza Tomek (Institute of Systematics and Evolution of Animals, Polish Academy of Sciences, Kraków, Poland) and two anonymous referees for comments on the manuscript. I was supported during the preparation of this paper by two grants from the Ministry of Culture of the Czech Republic (MK 06P04OMG008 and MK 00002327201),

REFERENCES

- Anonymous, 2011: Korean calendar. – URL: http://en.wikipedia.org/wiki/Korean_calendar [Accessed on 14 January 2011.]
Austin O.L., Jr., 1948: The birds of Korea. – Bulletin of the Museum of Comparative Zoology, Harvard University 101: 1-301.

- Austin O.L., Jr. & Kuroda N., 1953: The birds of Japan, their status and distribution. – Bulletin of the Museum of Comparative Zoology, Harvard University 109: 277-612.
- Brazil M., 1991: The birds of Japan. – London: Christopher Helm, xiii + 466 pp.
- Brazil M., 2009: Birds of East Asia. – London: Christopher Helm, 528 pp.
- Brzęk G., 1959: Złoty wiek ornitologii polskiej [The Golden Age of Polish ornithology]. – *Memorabilia Zoologica* 3: 1-175. [In Polish.]
- Clark W.S. & Schmitt N.J., 2006: Melanistic specimen of Black-chested Buzzard-Eagle (*Geranoaetus melanoleucus*), with comments on the species' taxonomic position. – *Journal of Raptor Research* 40: 86-88.
- Dale J., 2006: Intraspecific variation in coloration. – In: Hill G.E. & McGraw J.-D. (eds.): Bird coloration, function and evolution. Vol. 2: 36-86. London: Harvard University Press.
- Dickinson E.C., ed., 2003: The Howard and Moore Complete checklist of the birds of the world. 3rd rev. ed. – London: Christopher Helm, 1039 pp.
- Duckworth J.W. & Moores N., 2008: A re-evaluation of the pre-1948 Korean breeding avifauna: correcting a 'founder effect' in perceptions. – *Forktail* 24: 25-47.
- Ferguson-Lees J. & Christie D.A., 2001: Raptors of the world. – London: Christopher Helm, 992 pp.
- Fiebig J., 1993: Dreijährige ornithologische Studien in Nordkorea. I. Allgemeiner Teil und Non-Passeriformes. – *Annalen für Ornithologie* 17: 93-146.
- Fiebig J., 1995: Dreijährige ornithologische Studien in Nordkorea. II. Nachtrag zum I. Teil (Non-Passeriformes) und II. Teil Passeriformes. – *Annalen für Ornithologie* 19: 43-99.
- Galeotti P. & Rubolini D., 2004: The niche variation hypothesis and the evolution of colour polymorphism in birds: a comparative study of owls, nightjars and raptors. – *Biological Journal of the Linnean Society* 82: 237-248.
- Galeotti P., Rubolini D., Dunn P.O. & Fasola M., 2003: Colour polymorphism in birds: causes and functions. – *Journal of Evolutionary Biology* 16: 635-646.
- Galván I., Gangoso L., Grande J.M., Negro J.J., Rodríguez A., Figuerola J. & Alonso-Alvarez C., 2010: Antioxidant machinery differs between melanic and light nestlings of two polymorphic raptors. – *PLoS ONE* 5 (10): e13369. doi:10.1371/journal.pone.0013369.
- Heude P.M., 1887: Nouvelle espèce d'aigle de Tartarie. – *Le Naturaliste* 9 (8): 95.
- Hull J.M., Mindell D.P., Talbot S.L., Kay E.H., Hoekstra H.E. & Ernest H.B., 2010: Population structure and plumage polymorphism: The intraspecific evolutionary relationships of a polymorphic raptor, *Buteo jamaicensis harlani*. – *BMC Evolutionary Biology* 10 (224): 1-12.
- Ijima I., 1891: Notes on a collection of birds from Tsushima. – *Journal of the College of Science, Imperial University of Tokyo, Japan* 5: 105-128.
- Inskipp T., Lindsey N. & Duckworth W., 1996: An annotated checklist of the birds of the Oriental Region. Sandy: Oriental Bird Club, [10] + 294 pp.
- Kaiser M., 2011: A living specimen of the dark form of Steller's Sea Eagle, *Haliaeetus pelagicus* ("niger") in captivity. – *Journal of Ornithology* 152: 207-208.
- Liebers D., Helbig A.J. & Knijff P. de, 2001: Genetic differentiation and phylogeography of gulls in the *Larus fuscus - cachinnans* group (Aves: Charadriiformes): inferences from mitochondrial control region sequences. – *Molecular Ecology* 10: 2447-2462.
- Liebers D., Knijff P. de & Helbig A.J., 2004: The Herring Gull complex is not a ring species. – *Proceedings of the Royal Society of London (B)* 271: 893-901.
- Liebers-Helbig D., Sternkopf V., Helbig A.J. & Knijff P. de, 2010: The Herring Gull complex (*Larus argentatus - fuscus - cachinnans*) as a model group for Recent Holarctic vertebrate radiations. – In: Glaubrecht M. (ed.): *Evolution in action*: 351-371. Berlin: Springer-Verlag.

- Mlíkovský J., 2007a: Types of birds in the collections of the Museum and Institute of Zoology, Polish Academy of Sciences, Warszawa, Poland. Part 1: Introduction and European birds. – Journal of the National Museum (Prague), Natural History Series 176: 15-31.
- Mlíkovský J., 2007b: Types of birds in the collections of the Museum and Institute of Zoology, Polish Academy of Sciences, Warszawa, Poland. Part 2: Asian birds. – Journal of the National Museum (Prague), Natural History Series 176: 33-79.
- Mlíkovský J., 2009: Types of birds in the collections of the Museum and Institute of Zoology, Polish Academy of Sciences, Warszawa, Poland. Part 3: South American birds. – Journal of the National Museum (Prague), Natural History Series 178: 17-180.
- Mlíkovský J., 2010a: Types of birds in the collections of the Museum and Institute of Zoology, Polish Academy of Sciences, Warszawa, Poland. Part 4: Addenda, corrigenda and conclusions. – Journal of the National Museum (Prague), Natural History Series 179: 47-92.
- Mlíkovský J., 2010b: Interpreting dates in ornithology. – In: Louette M., Cael G. & Tavernier W. (eds.): Proceedings of the Sixth European Bird Curators Meeting. – Journal of Afrotropical Zoology, Special Issue: 61-64.
- NGA, 2011: NGA GEONet Names Server (GNS). – URL: <http://earth-info.nga.mil/gns/html/index.html> [Last accessed on 14 January 2011.]
- Roulin A. & Wink M., 2004: Predator-prey relationships and the evolution of colour polymorphism: a comparative analysis in diurnal raptors. – Biological Journal of the Linnean Society 81: 565-578.
- Sternkopf V., Liebers-Helbig D., Ritz M.S., Zhang J., Helbig A.J. & Knijff P. de, 2010: Introgressive hybridization and the evolutionary history of the herring gull complex revealed by mitochondrial and nuclear DNA. – BMC Evolutionary Biology 10 (348): 1-18.
- Stresemann E. & Amadon D., 1979: Order Falconiformes. – In: Mayr E. & Cottrell G.W. (eds.): Check-list of birds of the world. 2nd rev. ed. Vol. 1: 271-425. Cambridge, MA: Museum of Comparative Zoology.
- Sweet P.R., Duckworth J.W., Trombone T.J. & Robin L., 2007: The Hall collection of birds from Wonsan, central Korea, in spring 1903. – Forktail 23: 123-129.
- Taczanowski W. [Taczanowski L.], 1888: Liste des oiseaux recueillis en Corée par M. Jean Kalinowski. – Proceedings of the Scientific Meetings of the Zoological Society of London for the year 1887: 596-611.
- Taczanowski W. [Taczanowski L.], 1889: Liste supplémentaire des oiseaux recueillis en Corée par M. Jean Kalinowski. – Proceedings of the Scientific Meetings of the Zoological Society of London for the year 1888: 450-468.
- Taczanowski W. [Taczanowski L.], 1890: Description d'une nouvelle *Locustella* de la Corée. – Proceedings of the Scientific Meetings of the Zoological Society of London for the year 1889: 620-621.
- Thomsett S., 2007: A record of a first year dark plumage Augur Buzzard moulting into normal plumage. – Gabar 18: 25-30.
- Tomek T., 1999: The birds of North Korea. Non-Passeriformes. – Acta Zoologica Cracoviensia 42: 1-217.
- Tomek T., 2002: The birds of North Korea. Passeriformes. – Acta Zoologica Cracoviensia 45: 1-235.
- Tristram H.B., 1879: Description of a new species of woodpecker from the island of Tzus Sima, near Japan. – Proceedings of the Scientific Meetings of the Zoological Society of London 1879: 386-387.
- Wadas A., 2009: Kilka uwag o wczesnych kontaktach polsko-koreanskich ze szczególnym uwzględnieniem listów Jana Kalinowskiego z lat 1885–1887 [Some remarks on the early Polish-Korean

- contacts, with special respect to Jan Kalinowski's letters from 1885–1887]. – *Przegląd Orientalistyczny* 2009: 17-28. [In Polish.]
- Winkler H. & Christie D.A., 2004: Family Picidae (woodpeckers). – In: del Hoyo J., Elliott A. & Sargatal J. (eds.): *Handbook of the birds of the world*. Vol. 7: 296-555. Barcelona: Lynx Edicions.