

(Filchagov et al 1992, pers obs) and they are presumably hormonally not in breeding condition when passing through the Lake Baikal area.

In conclusion, species status should be given to *mongolicus* under both the PSC (diagnostic differences in, for instance, wing-tip pattern and winter-plumage markings) and the BSC (not interbreeding freely to any significant degree). It then appears that the Asian taxa until recently considered as subspecies of *cachinnans* are now better taken as full species, namely *armenicus*, *barabensis* and *mongolicus* (Buzun 1993, Filchagov 1993, Liebers & Helbig 1999, Panov & Monzikov 2000, this study), as Panov & Monzikov's (2000) suggestion that *barabensis* is a subspecies of *heuglini* is easily rejected on arguments similar to those I have developed about the relationships between *mongolicus* and other taxa.

#### Acknowledgements

Vladimir Vladimirovich Leonovich (1924-98), a friend of the arts, was the acknowledged curator of important art collections in Moscow. He also was a much-respected amateur ornithologist and one of the best oologists in Europe. I have been graced with his company from Moscow to Lake Baikal and during my stay there, benefiting from his intellectual and human richness. This article is dedicated to his memory.

My field and museum work in Russia was part of a co-operation scheme between the Russian Academy of Sciences and my employing structure (ONC-Faune Sauvage, French Ministry of Environment), and my visit to Lake Baikal was arranged in the framework of ornithological expeditions then organized in Siberia by Academician Professor E E Syroechkovsky from the Severtsov Institute in Moscow. I have been friendly welcomed and looked after all around Lake Baikal by Sergey Pyzhianov – who willingly shared his wide knowledge of the birds, the lake and its environment – and his wife Olga. I am much indebted to them. Also, the biologists from various scientific institutions in Irkutsk and Ulan Ude have always welcomed me to their field stations; their company has been appreciated both at work and after it. Thanks to their curator Pavel Tomkovich, I had access to the skin collection in the Moscow Zoological Museum where I benefited from the expert guidance of Andrey Filchagov who also showed me his skin collection and shared long conversations on the systematics and biology of Holarctic large white-headed gulls. Under the recommendation of V M Loskot, curator at the Zoological Institute of St Petersburg,

L V Firsova kindly prepared for me a part of the impressive skin collection held there. The company of Elena Zubakina, the wife of the reputed ornithologist Victor Zubakin, an expert gull student himself, has been most pleasing and helpful during my return trip from Lake Baikal to St Petersburg and Moscow. Sergey Pyzhianov, Andrey Filchagov and E I Kozhurina have greatly helped with the translation of Russian articles. Lastly, Gerald Oreel invited me to write this article for Dutch Birding after the presentation I gave on the same topic at the 4th International Gull Meeting (organized by Ted Hoogendoorn, Dirk Raes and Pascal Raevel) at Le Portel, Pas-de-Calais, France, on 7-10 October 1999. Many thanks to all of them.

#### Samenvatting

FENOTYPISCHE VARIATIE EN SYSTEMATIEK VAN MONGOOELSE MEEUW Mongoolse Meeuw *Larus (cachinnans) mongolicus* broedt van Zuidoost-Altai naar Hukun Nor in Noordoost-China, over Noord-Mongolië, het Tuva Autonome Gebied, het Baikalmeer en Transbaikalia. (De taxonomische verwantschap van de Zilvermeeuwen van het Khankameer (gelegen in het grensgebied van Oost-China en het Russische Verre Oosten) is onbekend.) De gehele populatie, geschat op slechts 19 000-22 000 paren (met inbegrip van 7200 paren in het Baikalmeer) of minder dan 100 000 vogels (met inbegrip van jonge en niet-broedende exemplaren), overwintert waarschijnlijk in de kustgebieden van Zuidoost-Azië.

In het voorjaar van 1992 onderzocht de auteur de fenotypische variatie van broedende *mongolicus* in het Baikalmeer. Dit onderzoek had onder meer betrekking op meer dan 150 op of bij nesten gevangen vogels. *Mongolicus* is een grote en zware meeuw, met een gemiddeld gewicht van 880-1580 g tijdens de broedtijd; de vleugelspanwijdte bedraagt 140-160 cm. Hij heeft een middengrijze ('mid-grey') mantel (de Munsell index, een maat voor de refractie van kleuren, varieert van 4.5 tot 5.5). Dit betekent dat *mongolicus* een duidelijk lichtere mantel heeft dan Heuglins Meeuw *L (heuglini) heuglini*. Hierin komen vele *mongolicus* overeen met vele Vegameeuwen *L vegae* (met inbegrip van Birulameeuw *L v birulai*) en Taimyrmeeuwen *L (h) taimyrensis*. *Mongolicus* heeft in vergelijking met andere Aziatische taxa een van de donkerste vleugelpunten. Zwart bevindt zich gewoonlijk op de zes tot negen buitenste handpennen, het vaakst op de zeven buitenste handpennen). Het zwart komt soms voor tot op de buitenste handdekveren. Gewoonlijk komt een witte spiegel (handpenvlek) voor op de buitenste twee handpennen (p9 en p10), minder vaak alleen op de buitenste handpen (p10). Meestal scheidt een subterminale zwarte band de witte spiegel van de witte handpenpunt. In tegenstelling tot Arctische meeuwen vertoont *mongolicus* slechts een zwakke kopstreping na de rui naar adult winterkleed. De gele snavel, met een rode gonysvlek,

vertoont een variabele zwarte tekening. De iriskleur varieert van geelachtig wit tot donker grijsbruin en de pootkleur van licht vleeskleurig tot helder oranje.

*Mongolicus* vertoont duidelijke fenotypische verschillen met Pontische Meeuw *L (c) cachinnans*. De belangrijkste verschillen worden gevormd door de tekening van de vleugelpunt (het aantal handpennen met zwart, de grijze tong en subterminale zwarte band op p10) en de kleur van de ondervleugel (licht grijs bij *mongolicus* en wit bij *cachinnans*). Er bestaan ook duidelijke vocale en genetische verschillen tussen deze twee taxa. *Mongolicus* lijkt nauwer verwant met *vegae* (met inbegrip van *birulai*) en *taimyrensis* alhoewel hij van deze taxa verschilt door de tekening van de vleugelpunt en het winterkleed. Doortrekkende *vegae* en *taimyrensis* verblijven in het voorjaar op het Baikalmeer. Hybridisatie van deze Arctische meeuwen met lokale *mongolicus* lijkt onwaarschijnlijk aangezien deze meeuwen in broedbiologisch opzicht 35-45 dagen 'achterlopen'. De fenotypische, vocale en genetische verschillen van *mongolicus* met *cachinnans* en het feit dat *mongolicus* reproductief geïsoleerd lijkt te zijn van de verwante Arctische taxa *vegae* (met inbegrip van *birulai*) en *taimyrensis* vormen aanwijzingen dat *mongolicus* als een aparte soort dient te worden opgevat (zowel onder het Fylogenetisch als het Biologisch Soortconcept).

## References

- Barth, E K 1966. Mantle colour as a systematic feature in *Larus argentatus* and *Larus fuscus*. *Nytt Mag Zool* 13: 56-82.
- British Ornithologists' Union 1997. A statement from the Council of the British Ornithologists' Union: the Meinerzhagen collection of birds at the Natural History Museum, Bird Group, Tring, UK. *Ibis* 139: 431.
- Buzun, V A 1993. [Armenian Gull *Larus armenicus* Buturlin, 1934: morpho-biometrical and behavioural distinctions with indication of taxonomic status.] *Russ J Ornithol* 2: 471-490. [In Russian.]
- Crochet, P-A 1998. Structure génétique des populations chez le Goéland leucophée, phylogéographie et phylogénie chez les laridés. Ph D thesis, Montpellier.
- Dement'ev, G P 1951. [Gulls (Order Lariformes).] In: Dement'ev, G P & Gladkov, N A (editors), [Birds of the Soviet Union 3], Moscow, pp 372-603. [In Russian.]
- Devillers, P 1983. *Larus argentatus* Herring Gull: plumages and bare parts, and geographical variation. In: Cramp, S & Simmons, K E L (editors), *The birds of the Western Palearctic* 3, Oxford, pp 831-834, 836-837.
- Devillers, P & Potvliege, R 1981. Le Goéland leucophée, *Larus cachinnans michahellis*, en Belgique. *Gerfaut* 71: 659-666.
- Dubois, P J & Yésou, P 1984. Identification of juvenile Yellow-legged Herring Gulls. *Br Birds* 77: 344-348.
- Filchagov, A V 1993. The Armenian Gull in Armenia. *Br Birds* 86: 550-560.
- Filchagov, A V, Yésou, P & Grabovsky, V I 1992. Le Goéland du Taïmyr *Larus heuglini taimyrensis*: répartition et biologie estivales. *Oiseau Rev Fr Ornithol* 62: 127-148.
- Garner, M & Quinn, D 1997. Identification of Yellow-legged Gulls in Britain. *Br Birds* 90: 25-62.
- Grant, P J 1982. Gulls: a guide to identification. Calton.
- Grant, P J 1986. Gulls: a guide to identification. Second edition. Calton.
- Gruber, D 1995. Die Kennzeichen und das Vorkommen der Weißkopfmöwe *Larus cachinnans* in Europa. *Limicola* 9: 121-165.
- Guiguen, C, Yésou, P & Beaucourno, J C 1993. Notes sur *Ceratophyllus vagabundus vagabundus* (Boheman), 1865, au lac Baïkal (Siphonaptera, Ceratophyllidae). *Bull Soc Entomol Fr* 98: 28.
- Haffer, J 1982. Systematik und Taxonomie der *Larus argentatus*-Artengruppe. In: Glutz von Blotzheim, U N & Bauer, K M (editors), *Handbuch der Vögel Mitteleuropas* 8/1, Wiesbaden, pp 502-515.
- Hirschfeld, E 1992. More gulls with bill bands. *Birding World* 5: 116.
- Hoogendoorn, W, Moores, N C & Moroka, T 1996. [The occurrence and field identification of adult 'Herring Gulls' with yellow legs in Japan.] *Birder* 4: 64-73. [In Japanese, with English summary.]
- del Hoyo, J, Elliot, A & Sargatal, J (editors), 1996. *Handbook of the birds of the world* 3. Barcelona.
- Jonsson, L 1998. Yellow-legged gulls and yellow-legged Herring Gulls in the Baltic. *Alula* 4: 74-100.
- Judin, K A & Firsova, L V 1990. *Larus argentatus* Pontopidan, 1763, Silbermöwe. In: Il'icev, V D & Zubakin, V A (editors), *Handbuch der Vögel der Sowjetunion* 6/1, Wittenberg, pp 112-129.
- Kennerley, P R 1987. Iris, leg and mantle colour of Mongolian Yellow-legged Gull. *Dutch Birding* 9: 29.
- Kennerley, P R, Hoogendoorn, W & Chalmers, M L 1995. Identification and systematics of large white-headed gulls in Hong Kong. *Hong Kong Bird Rep* 1994: 127-156.
- Klein, R 1994. Silbermöwen *Larus argentatus* und Weißkopfmöwen *Larus cachinnans* auf Mülldeponien in Mecklenburg – erste Ergebnisse einer Ringfundanalyse. *Vogelwelt* 115: 267-286.
- Klein, R & Gruber, D 1997. Die Bestimmung und taxonomische Stellung der in Mitteleuropa auftretenden Weißkopfmöwen *Larus cachinnans*. *Limicola* 11: 49-75.
- Lethaby, N, Moores, N & Yin-Young Park 2000. Birding in South Korea. *Dutch Birding* 22: 204-219.
- Liebers, D & Dierschke, V 1997. Variability of field characters in adult Pontic Yellow-legged Gulls. *Dutch Birding* 19: 277-280.
- Liebers, D & Helbig, A J 1999. Phänotypische Charakterisierung und systematische Stellung der Armenienmöwe *Larus armenicus*. *Limicola* 13: 281-321.
- Lönnerberg, E 1933. Some remarks on the systematic status of the Yellow-legged Herring Gull. *Ibis* 13: 47-50.
- Madge, S C 1983. Iris colour of Mongolian Yellow-legged Gull. *Dutch Birding* 5: 91.
- Madge, S C 1985. Iris colour of Mongolian Yellow-legged Gull. *Dutch Birding* 7: 145.
- Madge, S C 1992. Yellow-legged Gulls with bill bands. *Birding World* 5: 67-68.
- Panov, E N & Monzikov, D G 2000. Status of the form *barabensis* within the '*Larus argentatus-cachinnans*'

- fuscus* complex'. Br Birds 93: 227-241.
- Pleske, T 1928. Birds of the Eurasian tundra. Mem Boston Soc Nat Hist 6: 111-485.
- Pyzhianov, S V 1996. [*Larus argentatus mongolicus* Suschkin, 1925: number and distribution.] Russ J Ornithol 5: 95-100. [In Russian.]
- Pyzhianov, S V & Tupitchyn, I I 1992. [Variability of phenotypic characters in the Mongolian subspecies of the Herring Gull.] In: Zubakin, V A & Panov, E N (editors), [The Herring Gull and related forms: distribution, systematics, ecology], Stravopol, pp 18-20. [In Russian.]
- Pyzhjanov, S V 1998. Changes of legs colour in Herring Gull. Biol Cons Fauna 102: 238.
- Pyzhjanov, S V & Tupitsyn, I I 1994. *Larus argentatus mongolicus*: distribution, number and ecology. Poster P724. In: Anonymus, The ornithological notebook of the XXI International Ornithological Congress, Vienna. [No pagination.]
- Roberts, T J 1991. The birds of Pakistan 1. Oxford.
- Sangster, G, Hazevoet, C J, van den Berg, A B, Roselaar, C S & Sluys, R 1999. Dutch avifaunal list: species concepts, taxonomic instability, and taxonomic changes in 1977-1998. Ardea 87: 139-165.
- Stegmann, B K 1934. Über die Formen der großen Möwen ('subgenus *Larus*') und ihre gegenseitigen Beziehungen. J Ornithol 82: 340-380.
- Stepanyan, L S 1990. [Conspectus of the ornithological fauna of the USSR.] Moscow. [In Russian.]
- Sushkin, P P 1925. [Zoological regions of central Siberia and adjacent parts of mountainous Asia, and an essay on the history of the present fauna of Palaearctic Asia.] Bull Mosc Nat Soc NS Biol Sect 34: 7-86. [In Russian, partial English translation.]
- Yésou, P 1991. The sympatric breeding of *Larus fuscus*, *L. cachinnans* and *L. argentatus* in western France. Ibis 133: 256-263.
- Yésou, P, Filchagov, A V & Dubois, P J 1994. An answer to Chylarecki's comments on the 'new Herring Gull taxonomy'. Br Birds 87: 73-78.
- Yésou, P & Hirschfeld, E 1997. Which large gulls from the *Larus fuscus-cachinnans-argentatus* complex of (sub)species occur in Bahrain? Sandgrouse 19: 111-121.

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### Madeiran Storm-petrel off Denia, south-eastern Spain, in June 1997

On 30 June 1997 at 16:00, I noticed an unfamiliar storm-petrel *Oceanodroma* close to the shore near the harbour of Denia, Alicante, Spain. It was feeding amongst c 50 European Storm-petrels *Hydrobates pelagicus* and was quite easily picked out by its larger size and foraging behaviour. I could observe the bird for 4-5 min with binoculars and telescope at a distance ranging from 100 to 125 m, and I identified it as a Madeiran Storm-petrel *O. castro* (cf Lewington et al 1991, Jonsson 1992).

At first sight, the bird looked like a dark Leach's Storm-petrel *O. leucorhoa*, about equal in size, but with a very large white rump patch which extended onto the flanks and undertail-coverts, as in European Storm-petrel. Upon closer look, the tail was only slightly forked, unlike Leach's, and the wingbar on the upperwing was hard to see at a distance of c 125 m. The flight was completely different from either European or Leach's: a direct flight, with the wings held backwards like a small

skua *Stercorarius*. It flew in a line parallel to the coast, first from north to south, then it turned after a few 100 m to do it in reverse direction. This feeding flight was repeated at least five times.

In this area, European Storm-petrel breeds on the nearby Balearic isles of Ibiza and Formentera and in the coastal region south of Denia (eg, Islote de Benidorm and Tabarca) (Purroy 1997), and flocks of 30-50 birds were seen daily, feeding close to the pier at Denia from June to August 1997.

This observation has been accepted by the Spanish rarities committee (Eduardo de Juana in litt) and constitutes the third record of Madeiran Storm-petrel for Spain and about the 10th for Europe, and it is the first for the Mediterranean.

#### References

- Jonsson, L 1992. Birds of Europe with North Africa and the Middle East. London.
- Lewington, I, Alström, P & Colston, P 1991. A field guide to the rare birds of Britain and Europe. London.
- Purroy, F J (co-ordinator) 1997. Atlas de las aves de España (1975-1995). Barcelona.

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