PARENTAL ROLES AND THE MATING SYSTEM OF THE LONG-TOED STINT *CALIDRIS SUBMINUTA*

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Tomkovich,P.S. 1989. Parental roles and the mating system of the Long-toed Stint *Calidris subminta*. *WSG Bull.* 57: 42-43.

The mating system of the Long-toed Stint is poorly known. Observations of several broods in western Kamchatka in 1989 suggest a monogamous mating system in which incubation is shared, but with males caring for the brood after hatching.

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Parental roles and mating systems in birds are largely dependent on each other. These characteristics are very important in autecological studies because they are related with many other species-specific features such as site fidelity (Oring & Lank 1984), migration schedule (Kokhanov 1965), sexual dimorphism (Pitelka *et al.* 1974), and egg size (Ross 1979).

Sandpipers of subfamily Calidridinae have a unique diversity of mating systems among birds (Pitelka *et al.* 1974). The mating system of some of these sandpipers species has not, however, been fully investigated. Amongst these is the Long-toed Stint *Calidris subminuta*. Rather few breeding records are known for Long-toed Stint, whose breeding range covers most of Siberia. On occasions when adults were collected near their nests or near unfledged chicks they all proved to be males (see review in Tomkovich 1980, and also Nechaev 1979). This has led to the supposition that only males are responsible for parental duties in Long-toed Stint (Tomkovich 1980), and the species may have a non-monogamous mating system (Tomkovich 1984). My studies in lower Moroshechnaya River, Western Kamchatka (156°E, 56°30'N) in summer 1989 have thrown new light upon the problem.

Long-toed Sandpipers bred at extremely low density; so few data were obtained. A single clutch was found on 10 June 1989 on upland tundra within one hundred metres from birch *Betula ermanni* and dwarf-pine *Pinus pumila* forests. A female (identified by enlarged cloaca and large body dimensions) was captured at the nest and marked with colour flags on the evening of 13 June. Either this bird or another unmarked one was seen later on the nest during our visits. Chicks hatched before 1500 hr on 29 June. Observations were made from a hide in the middle of each day on 27, 28 and 29 June, mainly for photographic purposes. Only an unmarked bird (*i.e.* male) was at the nest on 27 and 29 June, while only the female was incubating on 28 June. This was the last observation of the female. Only the male, which was caught and marked on 29 June, was seen later with the brood.

On 27 June very small chicks of another brood were discovered outside a nest within half a kilometre from the previous nest and in the same habitat. Two birds were present and both performed distraction displays near the brood. One adult was more active than the other. It brooded the chicks, and only this bird (which was marked) was observed subsequently in the area. It was probably a male.

Another brood of recently hatched chicks was located in a marsh with sparce sage near the river (in a patch heavily grazed by domestic Reindeer *Rangifer tarandus*). The brood was accompanied by two adults in the middle of the day on 5 July, whilst only the male was observed and caught there in late evening of the same day.

In the two latter cases no other broods were present in the vicinity, so there seemed to be no opportunity for the adults to be caring for two different broods simultaneously.

Besides these cases, two other broods were discovered in the area. One was on upland tundra and another on the flood plain marsh inside a river bend. The chicks of the former brood were a few days old and accompanied by a single parent on 29 and 30 June. The chicks of the latter brood were still in the nest in the late evening of 30 June when found and were brooded by the male, but no further observations could be undertaken on this remotely located brood.

I draw the following conclusions from these observations. In the Kamchatka population of the Long-toed Stint, females, as well as males, participate in incubation until the chicks hatch, and the female sometimes stays with brood one day after the chicks leave the nest. After that broods are probably reared exclusively by males. Both breeding habitats of the species in the region (upland tundra and flood marshes) have few ephemeral pools and ponds used as feeding places by Stints. Most of these water bodies dried out to the end of June. In such an environment, biparental incubation gives an opportunity for the birds to have enough time to search for suitable feeding places some distance from their nest. Such parental care during incubation suggests that monogamy is the main mating system in Long-toed Stints. The rather restricted range of hatching dates (27 June - 5 July) supports this conclusion.

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REVIEW: BULLETIN OF THE WORKING GROUP ON WADERS (USSR)

M.G. Wilson

KONDRATIEV,A.Ya. (Ed.). 1989. *Bulletin of the Working Group on Waders*. (In Russian) Pp. 70. All-Union Ornithological Society (USSR Academy of Sciences) and Institute for the Study of Biological Problems of the North (Far East Branch of the USSR Academy of Sciences), Magadan 0.40 roubles. 300 copies printed.

This second Bulletin of the Soviet Wader Group begins with a report from the Executive Committee. Some new regional representatives have been appointed, but gaps remain to be filled. Recommendations are made for improving the work of the representatives, including liaison with the Committee. Potential contributors to the Bulletin are advised that much of the material submitted is not suitable for publication, but records of rare or endangered species, 'sensational' new records, the more exciting ringing recoveries, and announcements important to a large number of ornithologists will be welcome. Publicity for the Soviet Wader Group is guaranteed at home (through *Ornithologiya* and the Bulletin of the All-Union Ornithological Society) and abroad (bibliography of Soviet publications on waders prepared by V. V. Morozov in *WSG Bulletin*). The 4th All-Union Wader Conference is due to take place in Donetsk in February 1990: G. N. Molodan (pp. 6-7) gives more details on topics to be covered, competitions, registration, contributions, and the names of the seven-man organising committee under the chairmanship of V. E. Flint.

The Wader Records Committee presents its report on pp. 7-11. Semipalmated Plovers *Charadrius semipalmatus* on Geral'd Island (1 bird) and Wrangel Island (2 pairs) in 1988 are accepted as the first for the USSR: M. S. Stishov and V. I. Pridatko (p. 60) describe voice and behaviour and note that both pairs on Wrangel Island showed distraction displays. A claimed breeding record of American Golden Plover *Pluvialis dominica* on Wrangel Island is considered not fully authenticated, while the Committee reserves judgement on a report of an alleged Semipalmated Sandpiper *Calidris pusilla* on Geral'd Island. In contrast, there is no doubt about the country's first Killdeer *Charadrius vociferus*, second White-rumped Sandpiper *Calidris fuscicollis*, and *P. dominica* (all Chukotka) as these were collected.

Certain published records have not stood up to critical re-examination: with the rejection of a record on the Volga, Long-toed Stint *Calidris subminuta* has yet to occur in the European USSR, while a museum specimen of '*C. subminuta*' from Chukotka proved after closer scrutiny to be Temminck's Stint *C. temminckii*. Doubt is cast on breeding records of the last species and Broad-billed Sandpiper *Limicola falcinellus* in central Yakutia, and of *L. falcinellus* (non-proven) in Kamchatka. Red-necked Stint *C. ruficollis* records in the eastern European USSR, southern Yamal peninsula and Turkmeniya are all rejected, and the claimed breeding of Marsh Sandpiper *Tringa stagnatilis* in Leningrad region (see the book by Mal'chevski & Pukinski 1983) is thought more likely to refer (and a photograph in the book supports the revision) to Terek Sandpiper *Xenus cinereus*. The Records Committee emphasizes the need to provide full supporting details for all records submitted and requests notification of other apparently erroneous records in the literature.

While the value of regional committees for the assessment of many records is fully recognized, records of certain species are, it is considered, better examined at an All-Union level. All records of the following 18 species should be submitted to the Soviet Working Group Records Committee: Pheasant-tailed Jacana *Hydrophasianus chirurgus*, Painted Snipe *Rostratula benghalensis*, American Spur-winged Plover, Semipalmated Plover, Oriental Plover *Charadrius veredus*, Killdeer, Spur-winged Plover *Hoplopterus spinosus*, American Black Oystercatcher *Haematopus bachmani*, Black Turnstone *Arenaria melanocephala*, Wilson's Phalarope *Phalaropus tricolor*, Spotted Greenshank *Tringa guttifer*, White-rumped Sandpiper, Semipalmated Sandpiper, Least Sandpiper *Calidris minutilla*, Buff-breasted Sandpiper *Tryngites subruficollis*, Slender-billed Curlew *Numenius tenuirostris*, Eskimo Curlew *N. borealis* and Oriental Pratincole *Glareola maldivarum*. This list may be of interest to foreign birdwatchers visiting the Soviet Union: for example, P. Hottola from Finland reported (*Dutch Birding* 9:123) apparently the first 20th-century record of Spur-winged Plover for the USSR (April 1984 at Batumi, Black Sea, not to mention the country's first Audouin's Gull *Larus audouinii* at the same place in October 1984). The Committee further wishes to receive for consideration breeding records of Wandering Tattler *Heteroscelus incanus*, Jack Snipe *Lymnocryptes minimus*, Broad-billed Sandpiper, and Solitary Snipe *Gallinago solitaria*, also reports of any species breeding outside its normal range.

I. M. Gorban' (pp. 12-13) discusses the work of records committees in general (they have been established in the Soviet Baltic republics and in the western Ukraine - at L'vov in 1982). A committee for the whole of the Ukraine is deemed desirable but has yet to be set up. Meanwhile, a list of 30 wader species (rare breeders and vagrants) is put forward and this is likely to be adopted - probably with some revision following discussion - by such a committee.