

# POLYMELIA AND POLYDACTYLY IN A SILVER GULL *CHROICOCEPHALUS NOVAEHOLLANDIAE*

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## ABSTRACT

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Here, we report the first observation of polymelia and polydactyly in an Australian wild bird, an adult Silver Gull *Chroicocephalus novaehollandiae*.

**Key words:** Silver Gull, *Chroicocephalus novaehollandiae*, polymelia, polydactyly

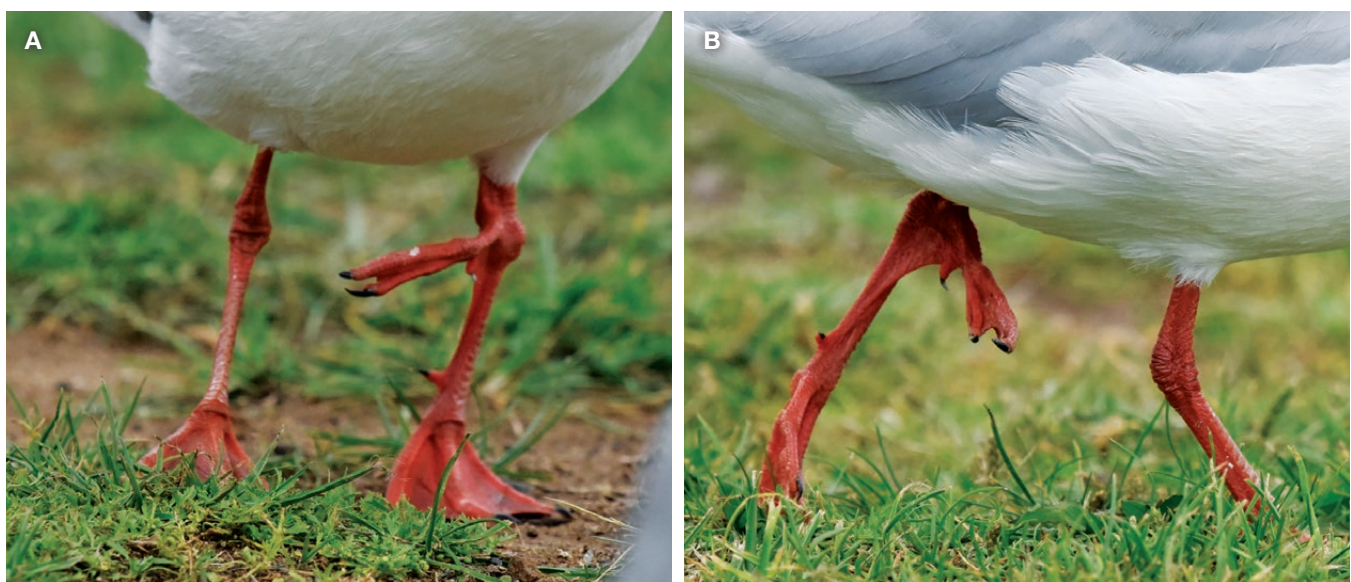
## OBSERVATIONS

On 30 March 2020, we observed an adult Silver Gull *Chroicocephalus novaehollandiae* with an abnormal left leg on the foreshore adjacent to fishing port facilities at Triabunna, Tasmania. The bird had a near complete third foot projecting inward and laterally at 90° from the tibiotarsus-tarsometatarsus joint. The third foot had three extensively-webbed toes and a hallux (Fig. 1A, 1B). The webbing extended downward from the third hallux onto the left tarsometatarsus for ~2 cm. There were no abnormalities observed on the right leg.

The left tibiotarsus-tarsometatarsus joint was substantially thicker than the right, and the left tibiotarsus was also noticeably thicker, suggesting the presence of extra bone(s) and/or soft tissue. The left

tarsometatarsus appeared normal and was identical in appearance to the right. The third foot interfered noticeably with the gull's normal locomotion, forcing it to walk with a pronounced hobbling gait. When walking, the third foot showed vertical rather than horizontal movement, indicative of a relatively flexible connection or the presence of a second articulation, which may explain the thicker left tibiotarsus-tarsometatarsus joint. At every opportunity when standing still, the gull brought its left leg underneath its abdomen and the third foot was not visible.

The bird was one of ~40 birds in a scavenging flock composed of adults, sub-adults and recently-fledged juveniles. The bird exhibited normal scavenging behaviour during the ~20 min of observations, and no aggressive interactions appeared between it and any of its conspecifics.



**Fig. 1.** (a) Anterior view of polymelia and polydactyly on the left leg of a Silver Gull *Chroicocephalus novaehollandiae*. Note the left tibiotarsus-tarsometatarsus joint is substantially thicker than the right, and the left tibiotarsus is also noticeably thicker, suggesting the presence of extra bone(s) and/or soft tissue. (b) Lateral view of polymelia and polydactyly on the left leg of a Silver Gull. Photographs © Eric J Woehler.

This is the first reported observation of polymelia and polydactyly in an Australian wild bird (but see Raidal *et al.* 2006 for a case of micromelia in two Little Penguins *Eudyptula minor* from Western Australia). Our observation differs notably from the two previous reports on North American wild larids—Sooty Tern *Onchoprion fuscata* (Austin 1969) and Ring-billed Gull *Larus delawarensis* (Ryder & Chamberlain 1972)—in that only one leg was affected. In both earlier reports, polymelia and polydactyly or syndactyly were present on both legs, albeit asymmetrically.

No previous observations of abnormal leg morphology have been made by the senior author during banding efforts involving several thousand Silver Gulls in Tasmania over 20 years. Similarly, no observations of abnormalities were made during banding of more than 8000 Silver Gulls in New South Wales over 32 years (N. Carlile pers. comm.). While anecdotal, these observations concur with very low rates of polymelia and polydactyly in larids (Ryder & Chamberlain 1972).

The bird could not be caught for veterinary inspection. Unfortunately, the absence of radiography prevents an examination to determine the full extent of polymelia and polydactyly present in the gull and whether other abnormalities are present.

#### ACKNOWLEDGEMENTS

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