Moult Recording Scheme Report 2020

I am pleased to begin working as Bird New Zealand's Moult Recording Scheme coordinator. This report outlines the current state of the Society's moult records and provides ideas for how the Scheme can continue to grow in the forthcoming year.

The Moult Scheme has been collecting data on moult in New Zealand birds for over four decades. One of my priorities was to help make this information more accessible for members of our ornithological community. I am happy to report that after digitizing the last of several 100 unentered moult cards and collating and cleaning records into a single electronic file, the Society now has an up-to-date moult scheme database! Using this database, we have already begun collaborating with researchers at Cape Town University and the Fitzpatrick Institute of African Ornithology to ask whether difference exist between the timing and duration of moult in introduced species found in New Zealand and populations within their native range. In addition to characterizing the life history timing of moult in introduced species, the projects will explore how climate acts to shape these factors. This is just the start — many interesting questions await to be asked in the fields of natural history, evolutionary ecology, and conservation biology using the moult scheme database. Anyone interested in obtaining a copy can contact me by email at: moult.record@birdsnz.org.nz.

The database consists of 5,970 records covering 137 species and including several subspecies. Most records are of birds not in active moult (61.1% of records), while the remaining third contain information on primary moult and, occasionally, moult scores for the secondaries and rectrices. Nearly half of all records come from European introductions with House Sparrow, Goldfinch, and Greenfinch being the most common. An additional 18.8% of the total records are accounted for by native Silvereyes alone. Primary moult of endemic species numbers 918 records (15.4%), with much of that data coming from non-passerines. Over the years, banding projects contributed to the majority of records in the database (80.0%), but beach-patrols, museum specimens, and other reports from deceased birds paly an equally important role, and accounted for the most data on pelagic species and those species listed as uncommon, rare, or very rare.

Table 1. Number of records for the five most common species overall and the five most common endemic species reported in the moult scheme database.

Most common species	Number of records	Endemic species	Number of records
Silvereye	1,126	Black-fronted tern	137
House sparrow	688	North Island kaka	90
Goldfinch	458	Grey warbler	75
Greenfinch	372	Banded dotterel	66
Redpoll	320	Bellbird	58

Moving ahead, I think it important that the Scheme continue to collect data on active flight feather moult using the same standards it has applied over the last 40 years. Banders using the FALCON bird banding system now have the option to enter some of this data online. I am looking forward to discussing how we might work together with the bird banding scheme to jointly maintain moult records of New Zealand's birds. Regarding other aspects of our data collection, I think there could be more focus on what's going on in non-moulting birds, which potentially have retained wing coverts, flight feathers, or body feathers. That pattern of new feathers bordered by old feathers (i.e., a

moult limit) provides exciting clues about a bird's age. There are few examples of how to precisely age New Zealand birds, specifically natives and endemics, using moult patterns, and I think the moult scheme could help bridge this knowledge gap.

Additional projects planned for this coming year include facilitating workshops aimed at teaching how to determine and score primary moult as well as age and sex birds in the hand. In preparation, I've begun making teaching tools: wing and tail mounts from deceased non-native birds. A next step would be to obtain a permit through Birds NZ to work with native and endemic species as well. I would also like to propose a minor revision of our active and non-active moult data sheets and will be looking for feedback from participants of the Scheme at this year's annual meeting.

To those who have contributed data in the past, thank you! I invite you to help us continue to improve our understanding of avian moult by keeping those records coming. There are many reasons why one might examine a bird in the hand, and each of these represents an opportunity to add to our collective knowledge of moult in New Zealand. This includes information on both moulting and non-moulting birds, whether alive or dead, captive or wild. Forms used for recording moult data can be downloaded from the website (http://osnz.org.nz/moult-recording-scheme) or, alternatively, by contacting me directly.

Looking forward to receiving your moult records,

Micah Scholer

Moult Recording Scheme Convener