

Moult in burrowing seabirds

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Annual moult pattern in burrowing seabirds

- Burrowing seabirds moult primary feathers between breeding seasons. Some start secondary moult during the breeding season
- Primaries moult outwards from P1 (inner) to P10 (outer). Some birds return to the colony moulting P9 and P10 primaries so wing length measurements taken will not be useful unless you check that P10 is the longest primary
- Tail moult is variable and is often still active when birds return to colonies. It can keep occurring during the breeding season
- Body moult is mostly completed when young birds return but breeding birds can have extensive old feathers on the body that they continue to moult during the breeding season.
- Younger non-breeding birds begin moult earlier than successful breeders and normally return with new feathers. However, some older feathers are always visible on the upper wing coverts on all birds older than 1 year
- The only time all the feathers on the bird's body are fresh and new is at fledging. The last down traces are on the secondary tips, flanks near legs and around the neck

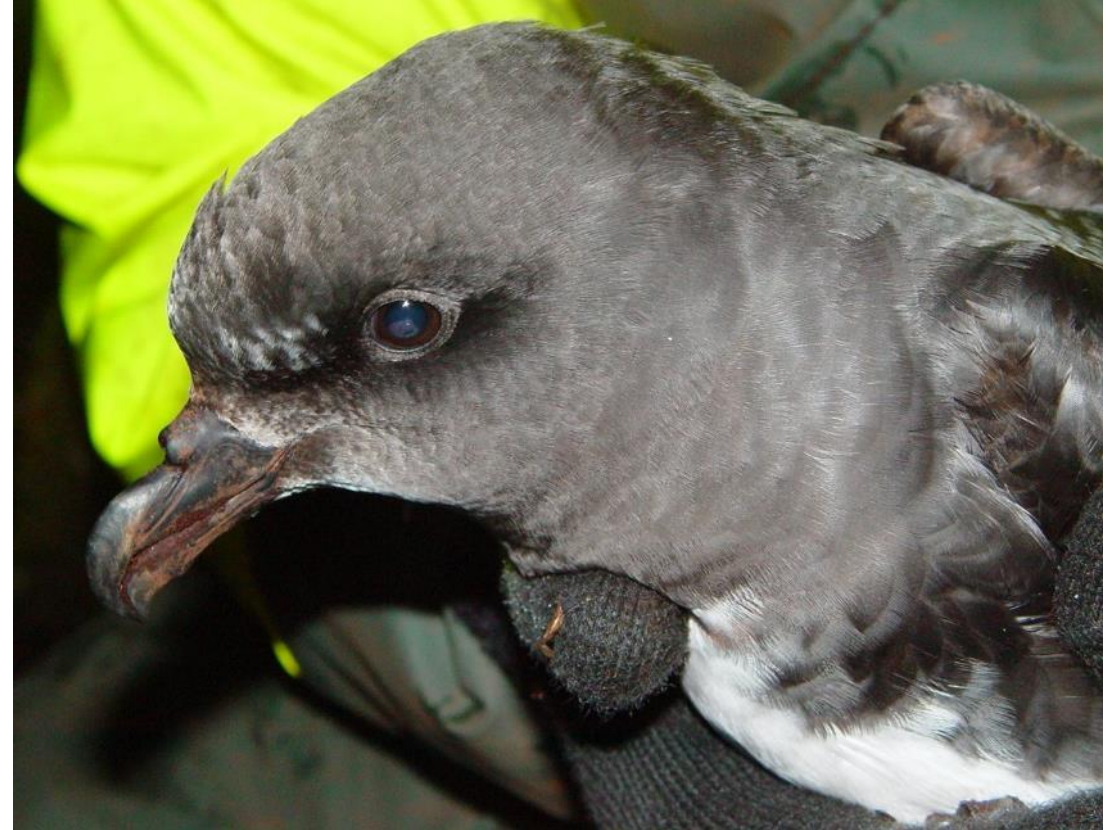
Chatham Island taiko - head moult (breeding season Sept-May)

Successful breeder just back in October



Note flecks of old brown feathers on crown and side of face, bird will moult these during the season

Non-breeder in October



Note all fresh plumage around head and face

Wing moult in Chatham Island taiko (*P. magentae*) from returned successful breeders

Upper wings – look for old worn brown feathers, new feathers are sooty or dark grey with glossy sheen, young birds mostly have new feathers, successful breeders had lots of old worn upper wing coverts



Moult can reveal hidden features!

- this white bar in the Chatham Island taiko underwing is covered during breeding but would be exposed in winter moult



Tail moult in Chatham Island taiko

Old, worn feathers and moulting above, newer tails below



Tail moult in Grey-faced petrels in April



Look for old brown feathers, and feathers in sheath.
There is no fixed pattern to tail moult

Flesh-footed shearwaters in May

Fledgling – note darker feathers, less worn bill



Adult – older worn faded plumage, bill tip heavily scuffed and worn



Flesh-footed shearwaters in May

Fledgling



Adult



Sharp new
feather tips on
chick versus
worn and
ragged on adult

