

Silvereye Colour Cline

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These notes are the result of following up a lead uncovered during the analysis of south-east Queensland aspects of the Co-operative Silvereye Project. (Robertson 1971). It was shown there that nearly 50 per cent of summer and about 20 per cent of winter Silvereyes in south-east Queensland have a yellow undertail area whilst this colour is rare in visiting southern birds.

It seemed likely that any relevant material held in the Queensland Museum would be a promising source of information of the colours of the undertail area of Silvereyes from the rest of Queensland. Therefore access to this was sought. My thanks are due to the Director of that Museum, and in particular to the Ornithologist, Mr Don Vernon, for making available to me these Silver-eye skins held in that collection.

The difficulties of listing for comparison the various intensities of a colour, as found on each individual of a large range of bird specimens, were discussed at length in that article. It was proposed therein that for future booking purposes the palest intensity of colour would be recorded as 1 Tawny (or 1 Yellow as the case may be) and the darkest intensity by 10 Tawny (or 10 Yellow) with intermediate intensities shown by a figure visually estimated as suitable to that particular bird.

In tabulating the 41 specimens from the Queensland Museum, this decimal gradation of colour intensity, as above proposed, was applied to the bookings of throat, flank and undertail colours. As a check on the practicability of the idea, two separate tabulations of all 41 Silvereyes were made, spaced a few days apart. Comparison of these two lists demonstrated that the method is satisfactory for the purpose and gave reasonably reproducible results. It is certainly more precise than simply booking pale or bright.

In addition to the estimated colour intensities as above, these tabulations listed, from the

Museum labels, specimen number, collection site, date, sex, etc. Later the latitude of each collection site was added.

Scanning these tabulations it was noticed that the numerically higher values allotted to the undertail intensity of yellow seemed to be for North Queensland. Consequently a further list was drawn up based on a sequence of descending order of intensity of yellow of the undertail area. This list is shown in Table 1.

Whilst the sample is a small one, the Table is clear in its inference of a colour cline of the undertail yellow decreasing in intensity from north to south in Queensland.

This conclusion agrees with and extends northerly the trends demonstrated in the previous article, (Robertson 1971).

If this undertail colour cline is accepted, and further substantiated, it may well offer possibilities of estimating current population sources at a station in northern areas similarly as the grey to yellow throat and grey to rufous flank transitions appear to offer for southern Australia.

The seasonal determination and publication of each of these population proportions, for the three vital areas of throat, flank and undertail, at various stations up and down Eastern Australia and Tasmania, may well yield some illuminating results.

It is obvious that, at the same time, possible seasonal changes of colour of individual birds needs investigation by retrap series. A seasonal

TABLE 1

Queensland Museum Silvereye skins listed in descending sequence of intensity of yellow of undertail areas.

Y = Yellow; T = Tawny; G = Grey.

Museum Serial No.	Date	Sex	Undertail	Throat	Flank	Collection Site	Latitude S. (degrees)
0 5199	22. 6.48	M	Y8	Y9	G	Iron Range	13
0 10499	24. 6.65	—	Y7	Y10	T1	Innisfail	18
0 5200	12. 9.48	M	Y5	Y9	G	Mount Finnigan	16
0 10777	21. 7.65	F	Y5	Y10	G	Innisfail	18
0 6357	30. 9.58	M	Y4	Y8	T1	Mossman	17
0 5201	13. 9.48	F	Y3	Y7	G	Mount Finnigan	16
0 4852	—	M	Y3	Y6	G	Bellenden Ker	17
0 5202	13. 9.48	F	Y2	Y6	G	Mount Finnigan	16
0 4853	—	M	Y2	Y6	G	Cardwell	18
0 10161	19. 6.61	—	Y2	Y8	T2	Mackay	21
0 4842	—	F	Y2	Y6	G	Brisbane	28
0 4845	—	M	Y2	Y7	T4	Brisbane	28
0 427	20. 6.11	M	Y1	Y6	T5	Brisbane	28
0 5983	25. 2.58	M	Y1	Y9	T2	Yarraman	27
0 4843	31. 5.98	M	Y1	Y9	T2	Brisbane	28
0 4851	—	—	Y1	Y5	T1	Chinchilla	27
0 359	20.11.11	M	Y1	Y1	T5	Kangaroo Island, S.A.	36
0 9269	29. 7.62	F	G	Y8	T5	Fraser Island	25
0 11455	29. 7.70	M	G	Y5	G	Brighton	27

The remaining 22 skins are all listed as "Grey Undertail" and are from sites on or south of Latitude 27 degrees to as far south as 36 degrees.

variation factor may emerge additional to the geographic one.

The sexual differences in the plumage of the Silvereye, also including the problem of colour variation in general, have been discussed by Jiro Kikkawa, (1963).

References

- Kikkawa, Jiro. (1963). 'A Sexual Difference in the Plumage of the Silvereye, *Zosterops lateralis*', *Emu*, 63:32.
 Robertson, J. S. (1971). 'South-east Queensland Aspects of the Co-operative Silvereye Project', *Aust. Bird Bander*, 9:51-55.

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Bird Banding Supplies

Present prices for mist nets and spring balances are set out in volume 9, no. 3, page 68 (September 1971).

In addition to the balances listed, other sizes are made; although not stocked, they can be obtained on request within a few weeks. Prices are similar to those for the stock sizes.

Due to the international currency changes, the prices of all nets will rise. The new prices will be advised as new stocks are received.