



Aerial Survey of Wetland Birds in Eastern Australia - October 2008 Annual Summary Report

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Results summary

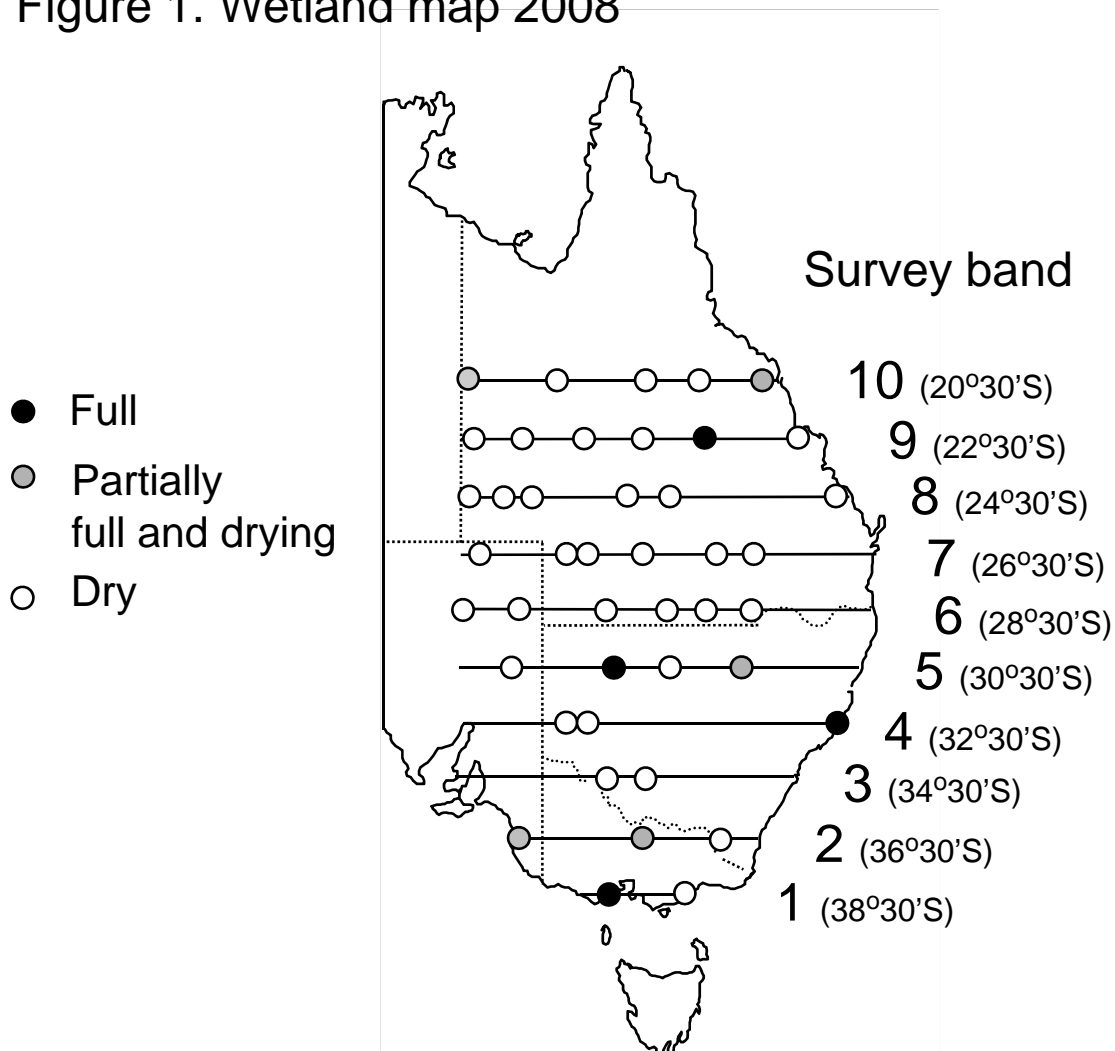
1. The survey region experienced significant flooding in the Paroo-Warrego, Narran Lakes and Gippsland areas, early in 2008, however drought continues to affect wetlands, floodplains and rivers in much of eastern Australia. Trend analyses indicate overall declines in waterbird abundance, wetland area, breeding abundance and breeding species richness but increases in 2008 compared to the previous 5 years.
2. The Macquarie Marshes, Lowbidgee and southern Menindee Lakes were dry or almost dry. Most rivers in the Murray-Darling Basin were also low with little water on the floodplains. Wetlands in the Gippsland area in the survey band were dry, but flooded shortly afterwards (November 2008)
3. The Paroo overflow lakes and Cuttaburra channels held water after flooding in December 2007 and more than 50,000 waterbirds were recorded.
4. Total waterbird abundance was below average (Fig. 3) and waterbirds were concentrated on a few wetlands. Five wetland systems held more than 66% of total abundance; Lake Galilee (25%, Band 9), Cuttaburra Creek (17%), Paroo overflow (16%), Barwon River (6%) and Cooper Creek waterholes (Fig. 4).
5. Total breeding index (all species combined) was below average but higher than in the two previous years, and concentrated (94%) in two locations – Rhyll Swamp in Band 1, and Lake Galilee in Band 9 (Figs 4-6). Breeding species richness was low, and comprised mainly of three non-game species, White Ibis, Whiskered Tern and Black Swan (92%). Few active breeding sites were recorded elsewhere (Figs 7 & 8).

This survey is run by the University of NSW and the NSW Department of Environment and Climate Change, with funding provided by the South Australian Department of Environment and Heritage, the Queensland Environment Protection Agency and the Victorian Department of Sustainability and Environment.

Result summary continued

6. Low numbers of waterbirds and breeding were observed on key wetland systems including Cooper Creek, Menindee Lakes, Lowbidgee and Macquarie Marshes extending a sequence of below average years (Figs 5 & 6). A combination of drought and long term cumulative effects of river regulation, continues to impact on wetland availability, waterbird abundance and breeding.
7. Species at or near their lowest recorded numbers in 26 years included: Straw necked ibis, Great crested grebe, Australasian shoveler, Silver gull, egrets, Pacific Heron and Banded stilts.

Figure 1. Wetland map 2008



Key to wetlands from W-E, by band

- 10 Lake Moondarra, Cloncurry River, Flinders River, Campaspe R, Burdekin R
- 9 Georgina R, Eyre Ck, Hamilton R, Diamantina R, Lake Galilee, Styx R
- 8 Mumbleberry-Torquinnie Lakes, Eyre Ck, Diamantina R, Thomson R, Barcoo R, various small coastal wetlands
- 7 Goyder Lagoon, Lake Yamma Yamma, Cooper Ck, Bulloo R, Paroo R, Warrego R
- 6 Lake Eyre, Lake Hope, Bulloo R, Paroo R, Warrego R, Balonne R,
- 5 Lake Frome, Paroo O'flow, Darling R, Macquarie Marshes
- 4 Menindee Lakes, Talywalka Lakes, Myall Lakes
- 3 Murray River Lakes, Lowbidgee Swamp
- 2 Coorong, Cooper + Mokoan Lakes, Cooma-Monaro
- 1 Curdies Inlet, Jack Smith Lake

Figure 2. Total wetland area

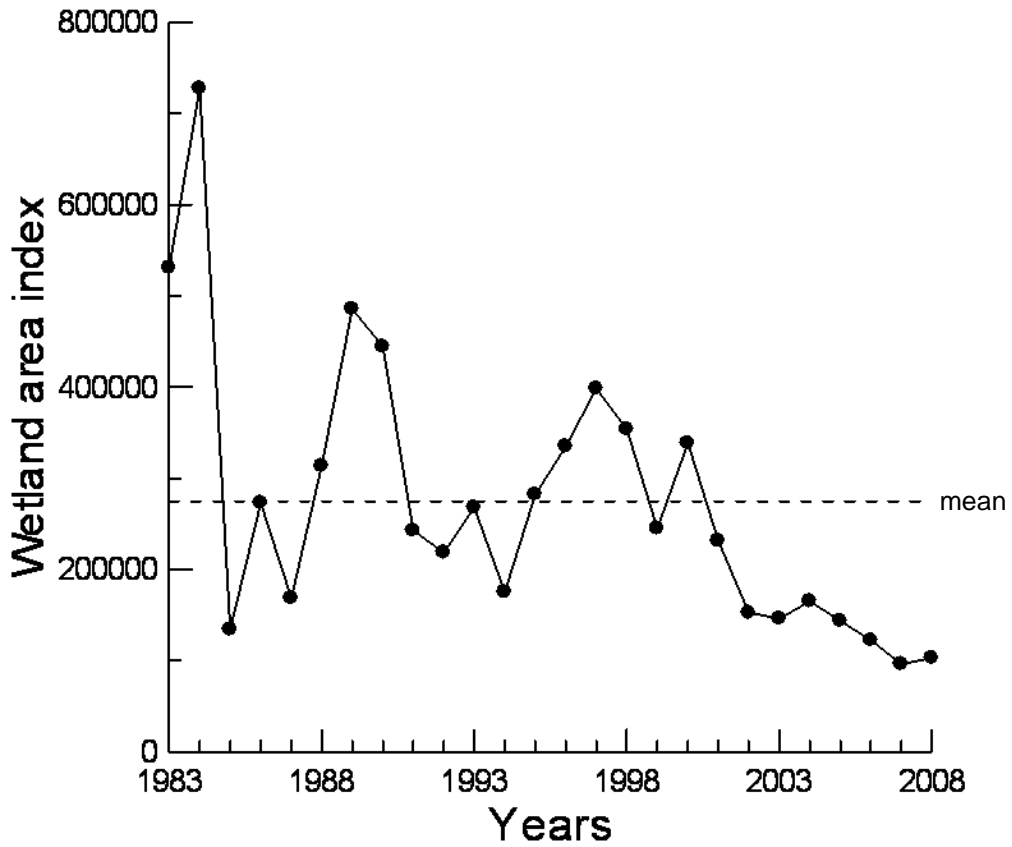


Figure 3. Total waterbirds

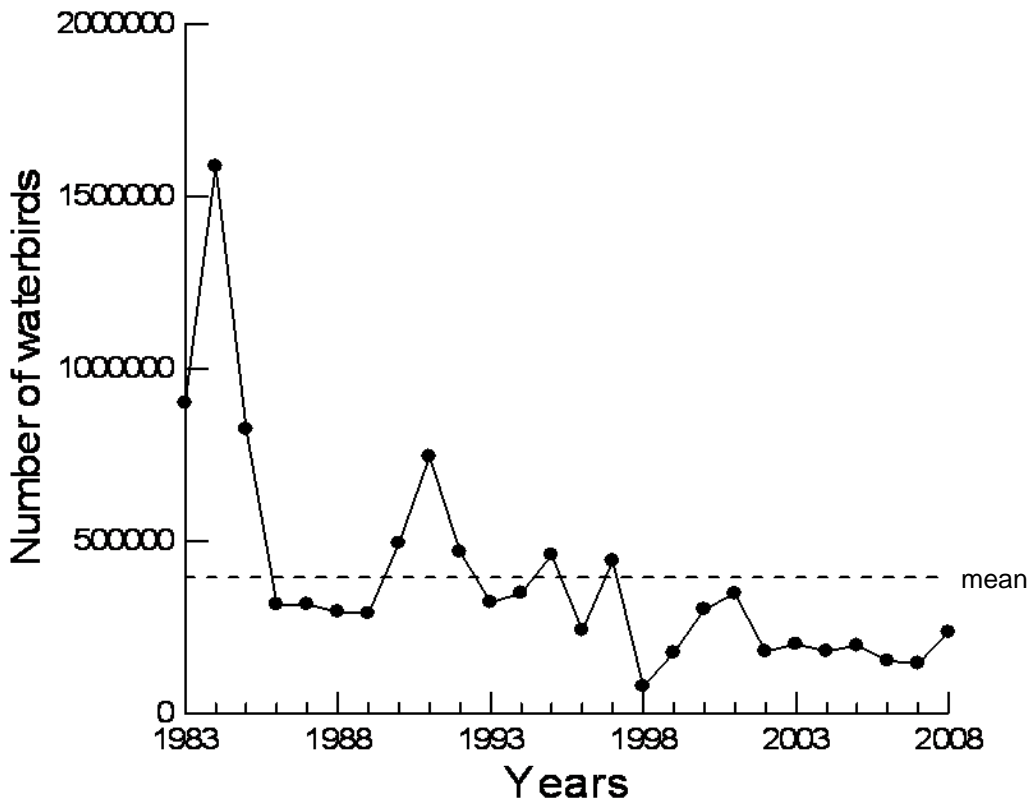
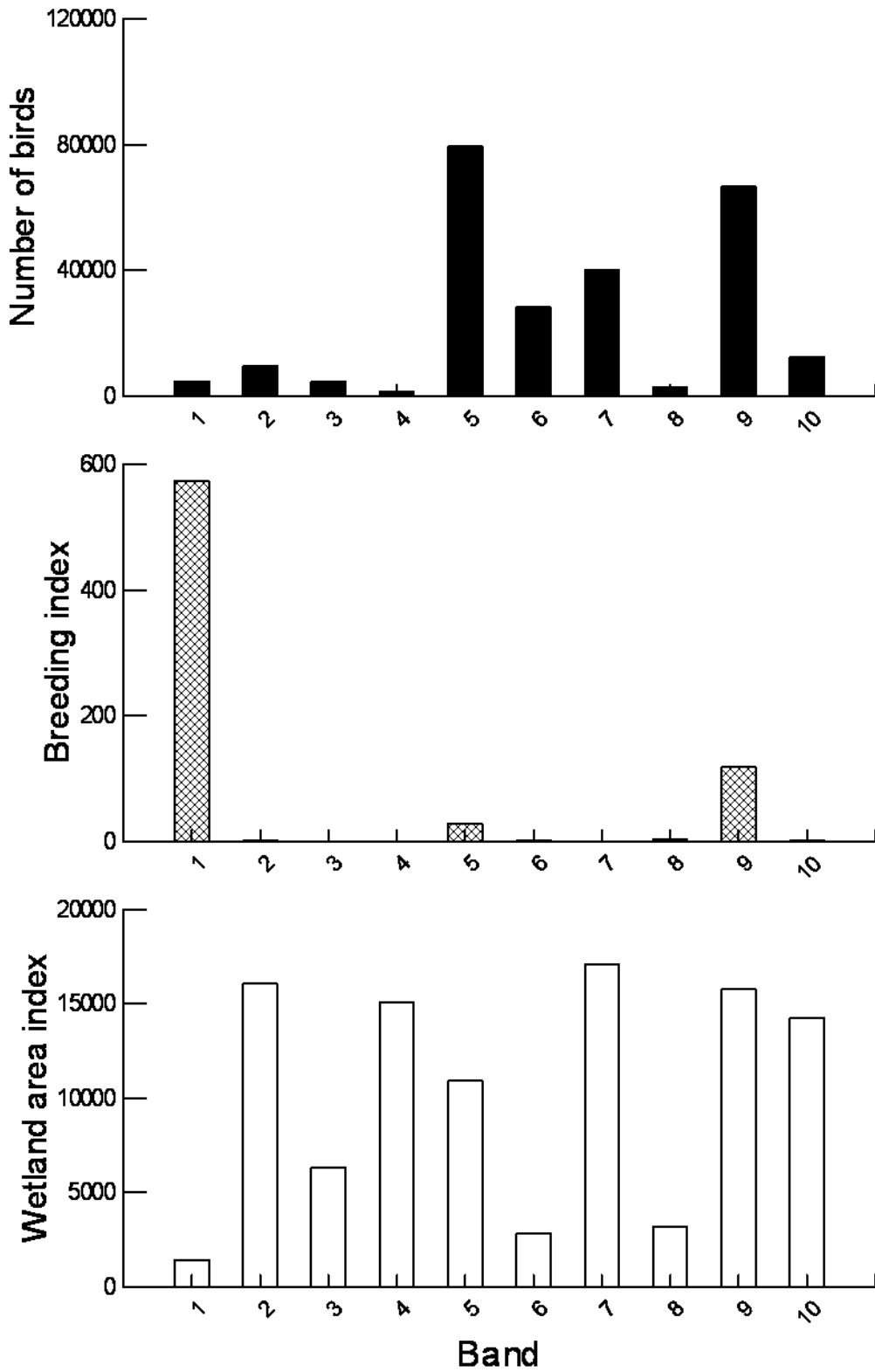


Figure 4. Band totals 2008



Scales vary on graph axes

Figure 5. Breeding index (all species)

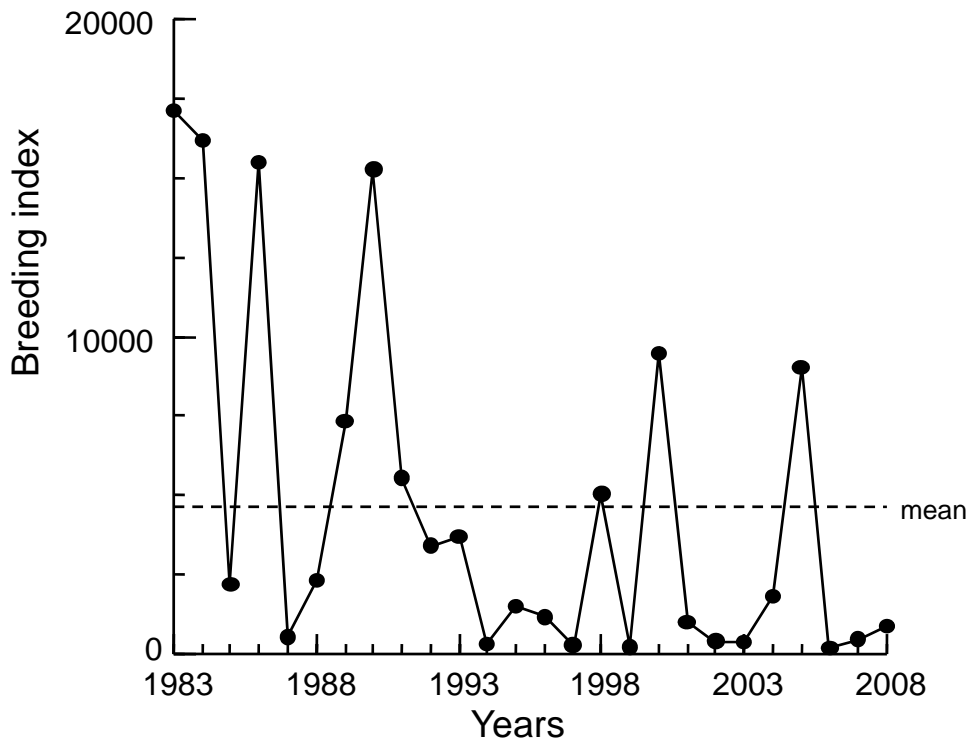
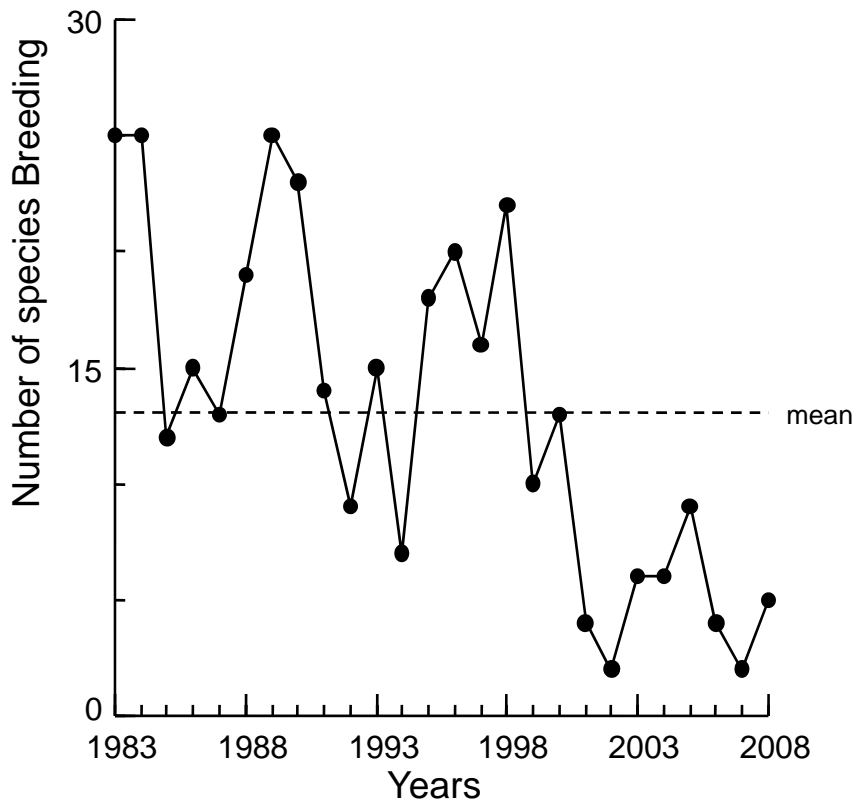
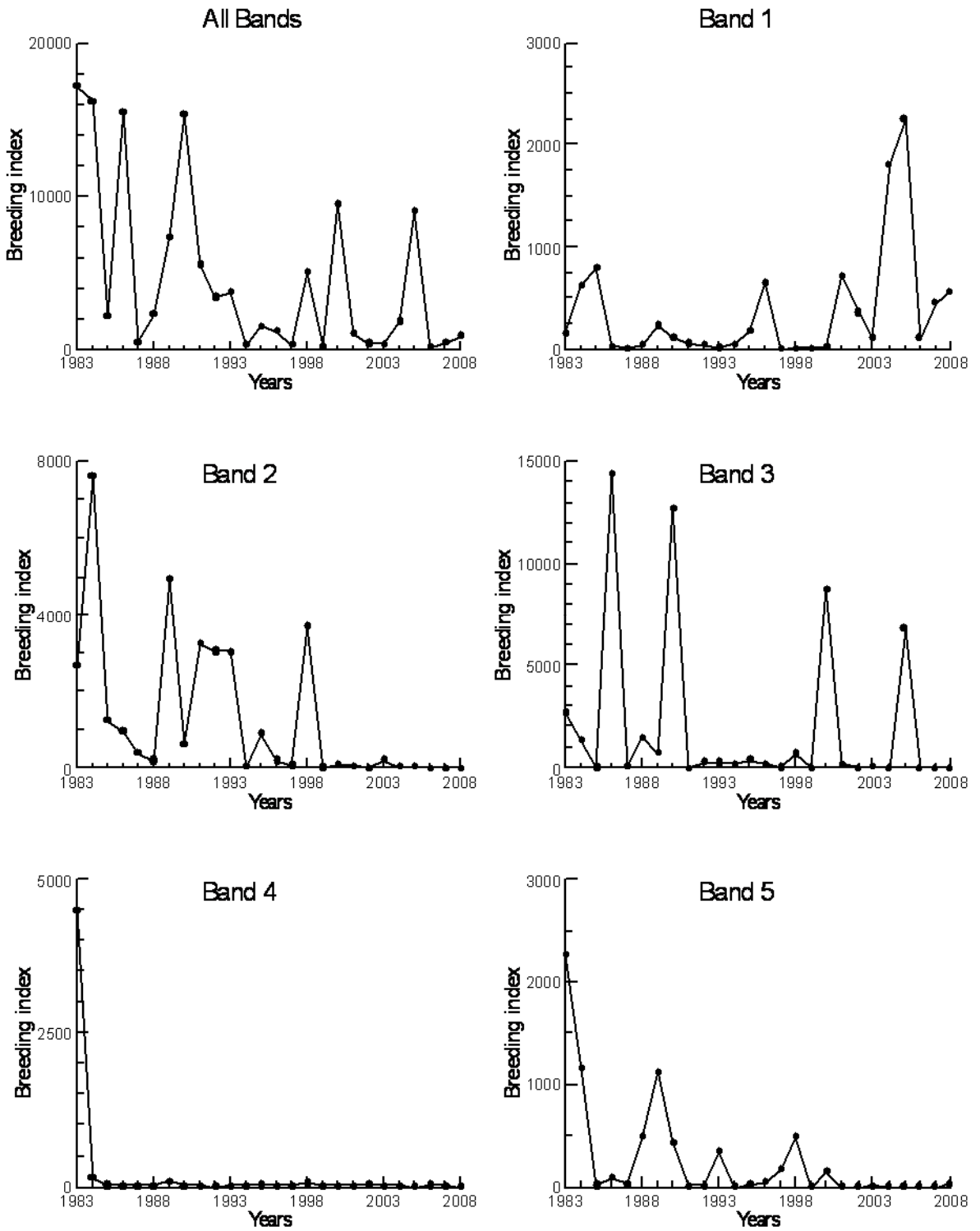


Figure 6. Number of species breeding



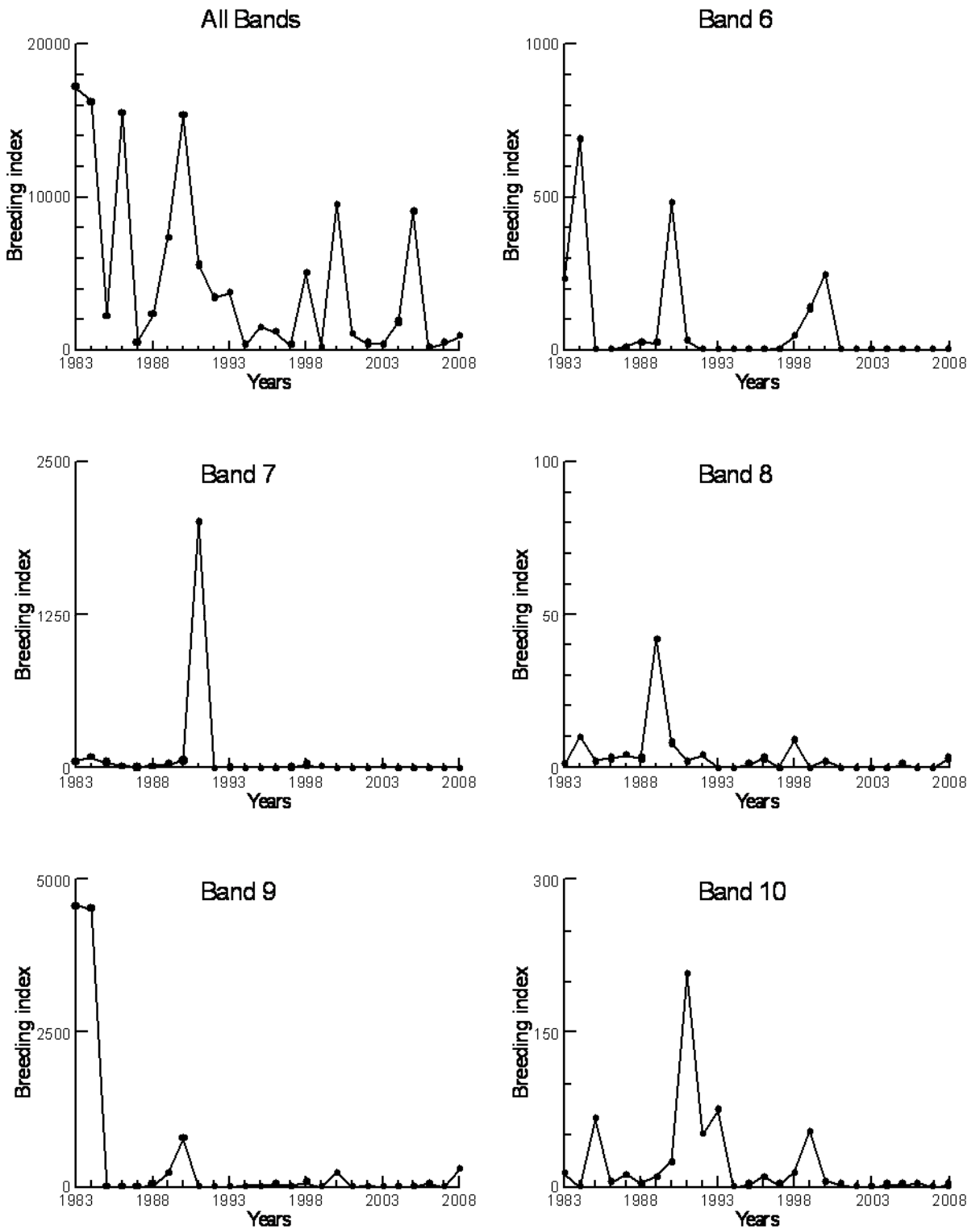
Scales vary on graph axes

Figure 7. Breeding index (all species) 1-5



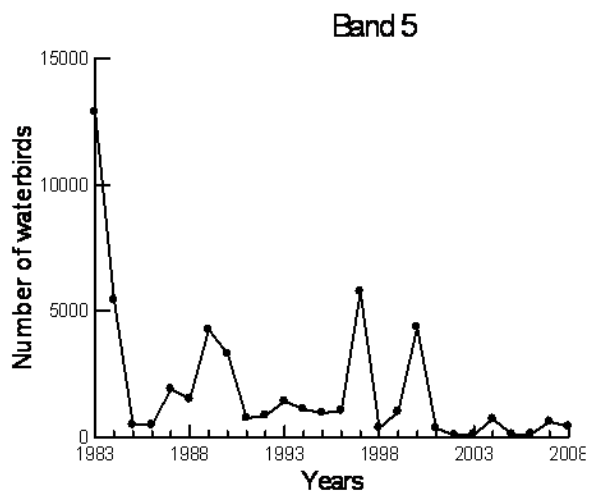
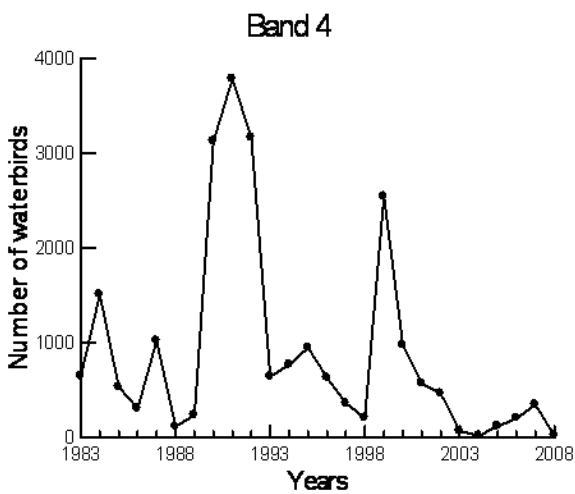
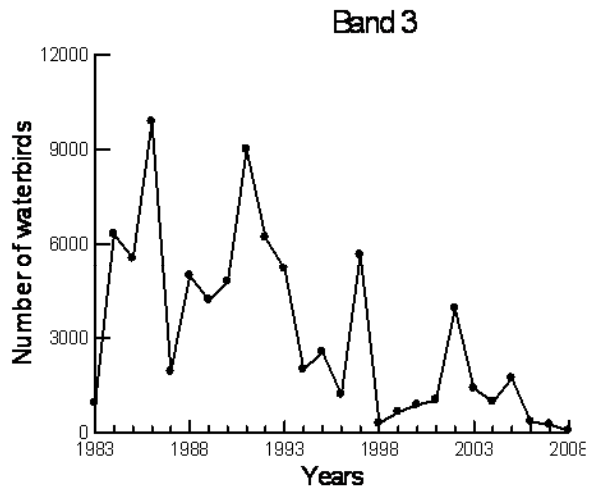
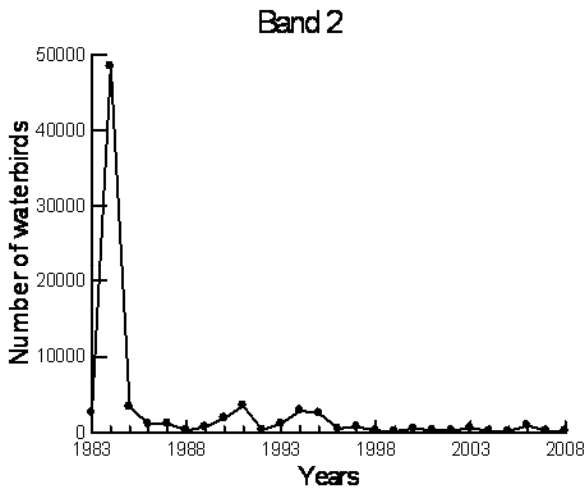
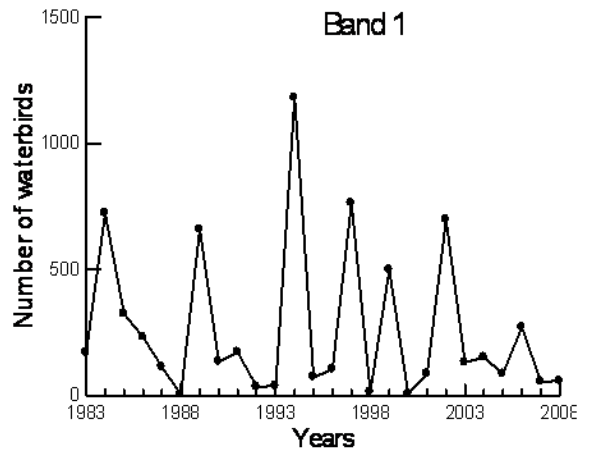
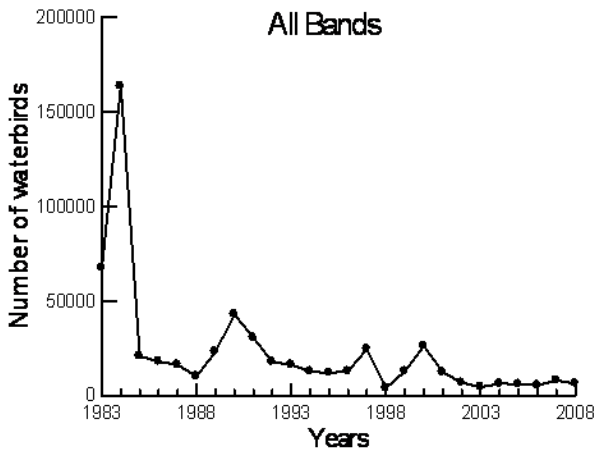
Scales vary on graphs

Figure 8. Breeding index 6-10



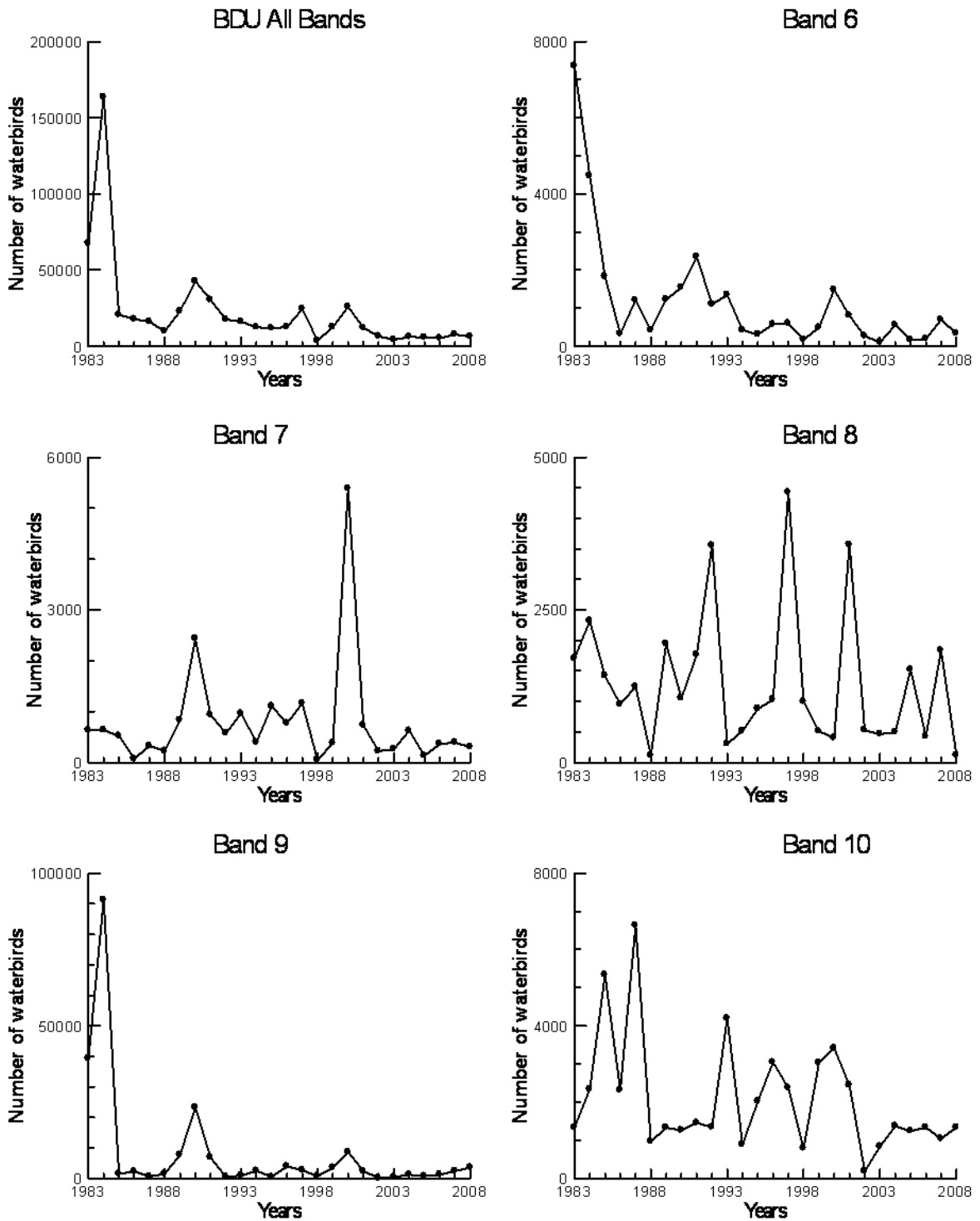
Scales vary on graphs

Figure 9. Pacific black duck 1-5



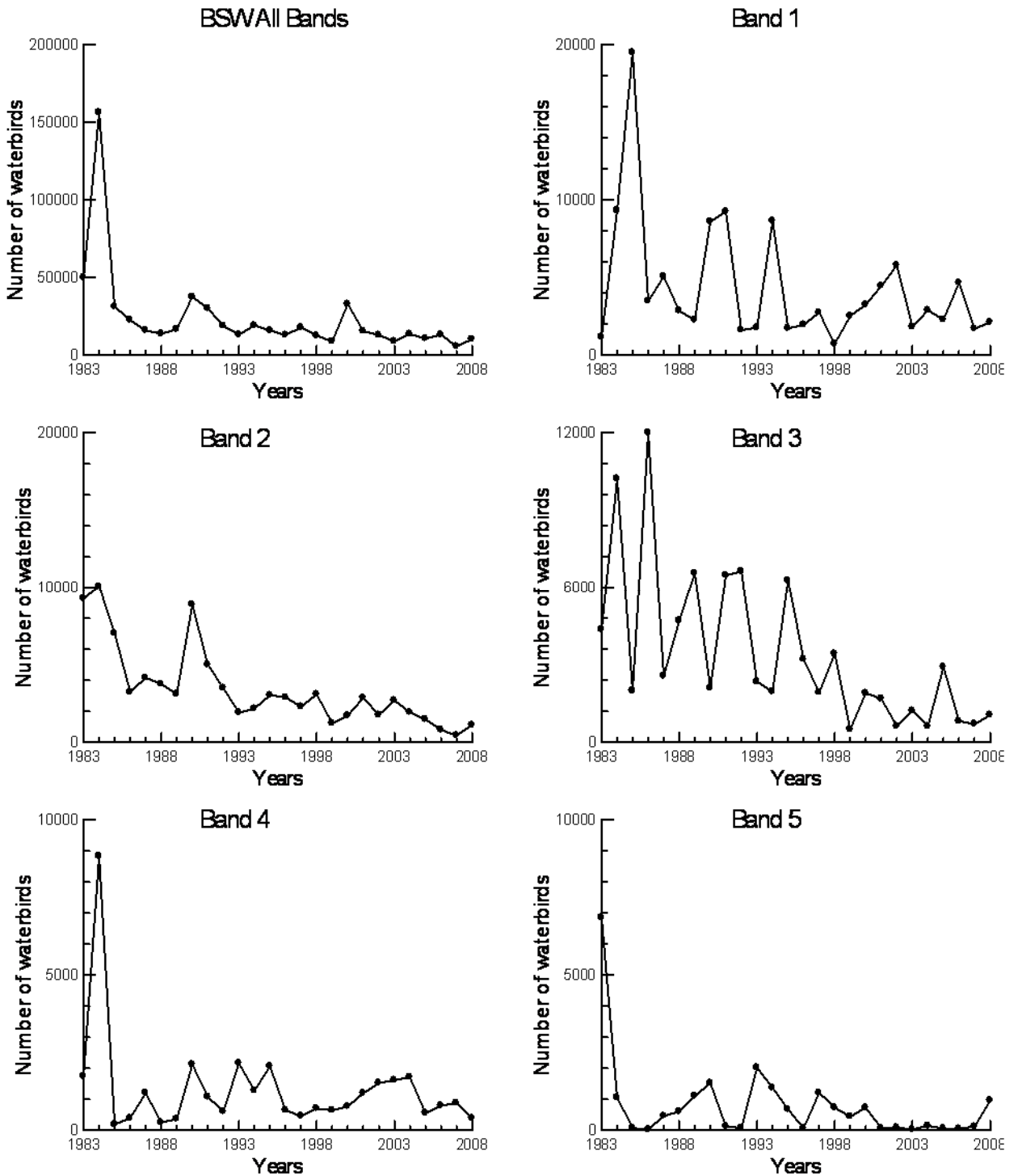
Scales vary on graphs

Figure 10. Pacific black duck 6-10



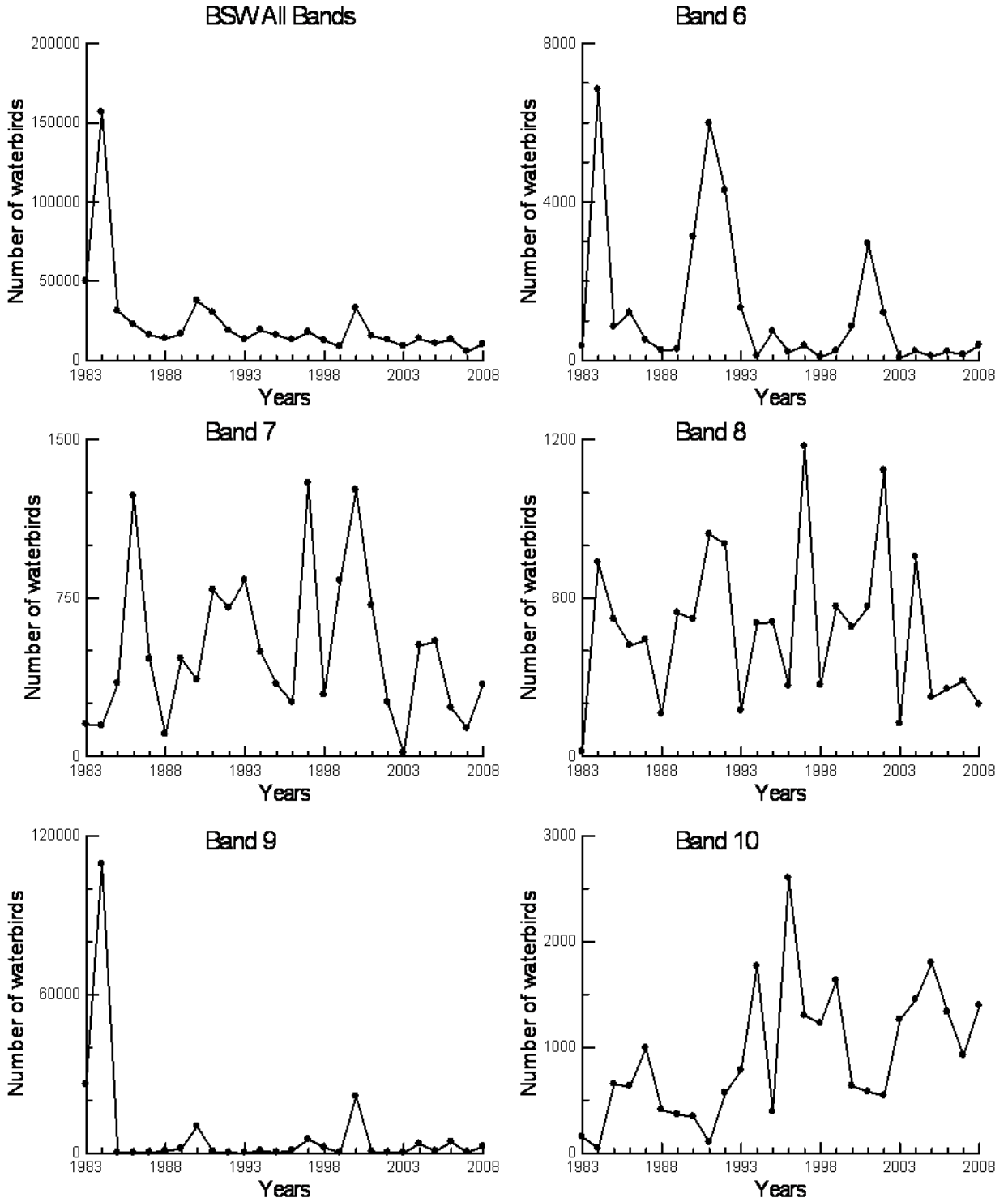
Scales vary on graphs

Figure 11. Black swan 1-5



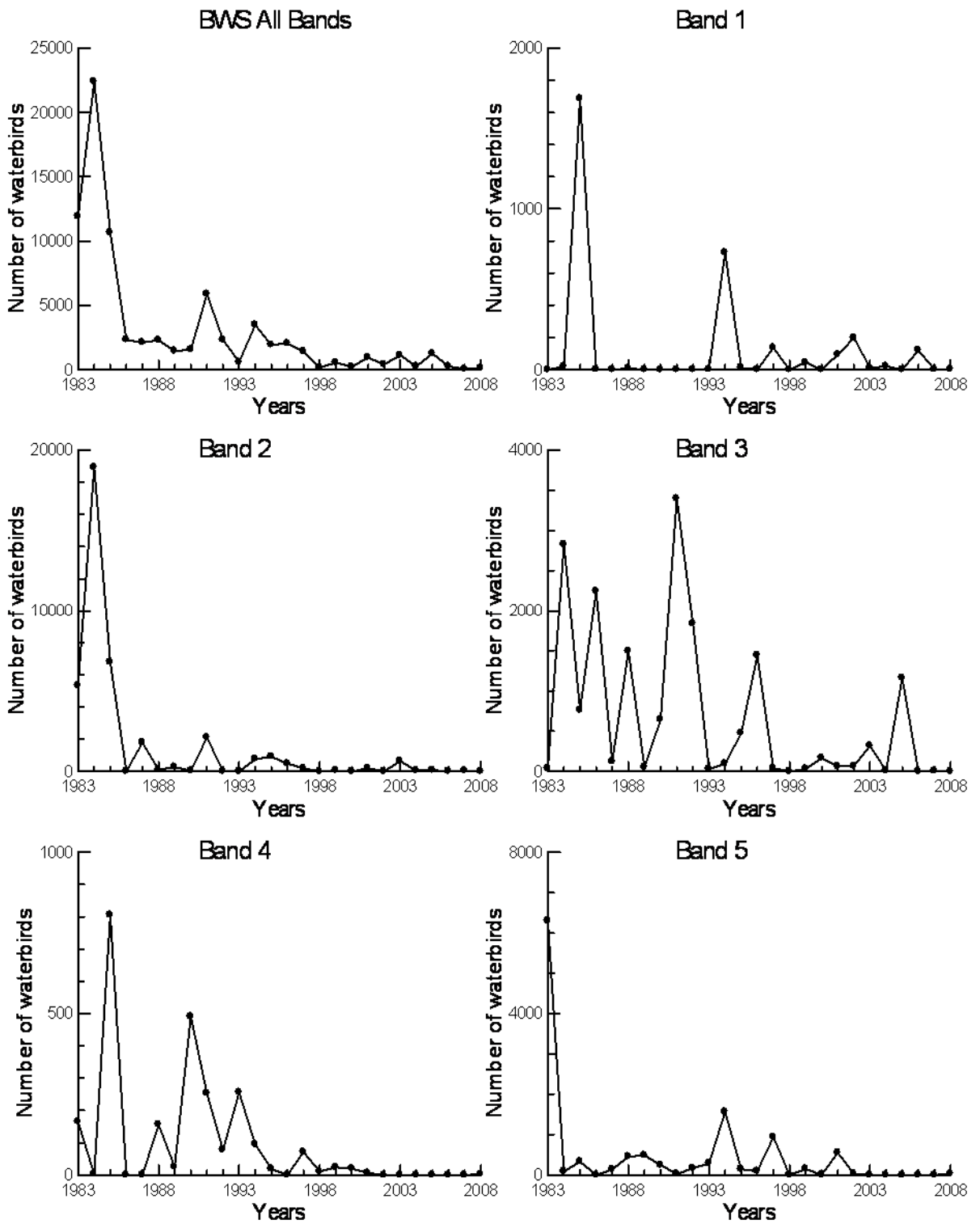
Scales vary on graphs

Figure 12. Black swan 6-10



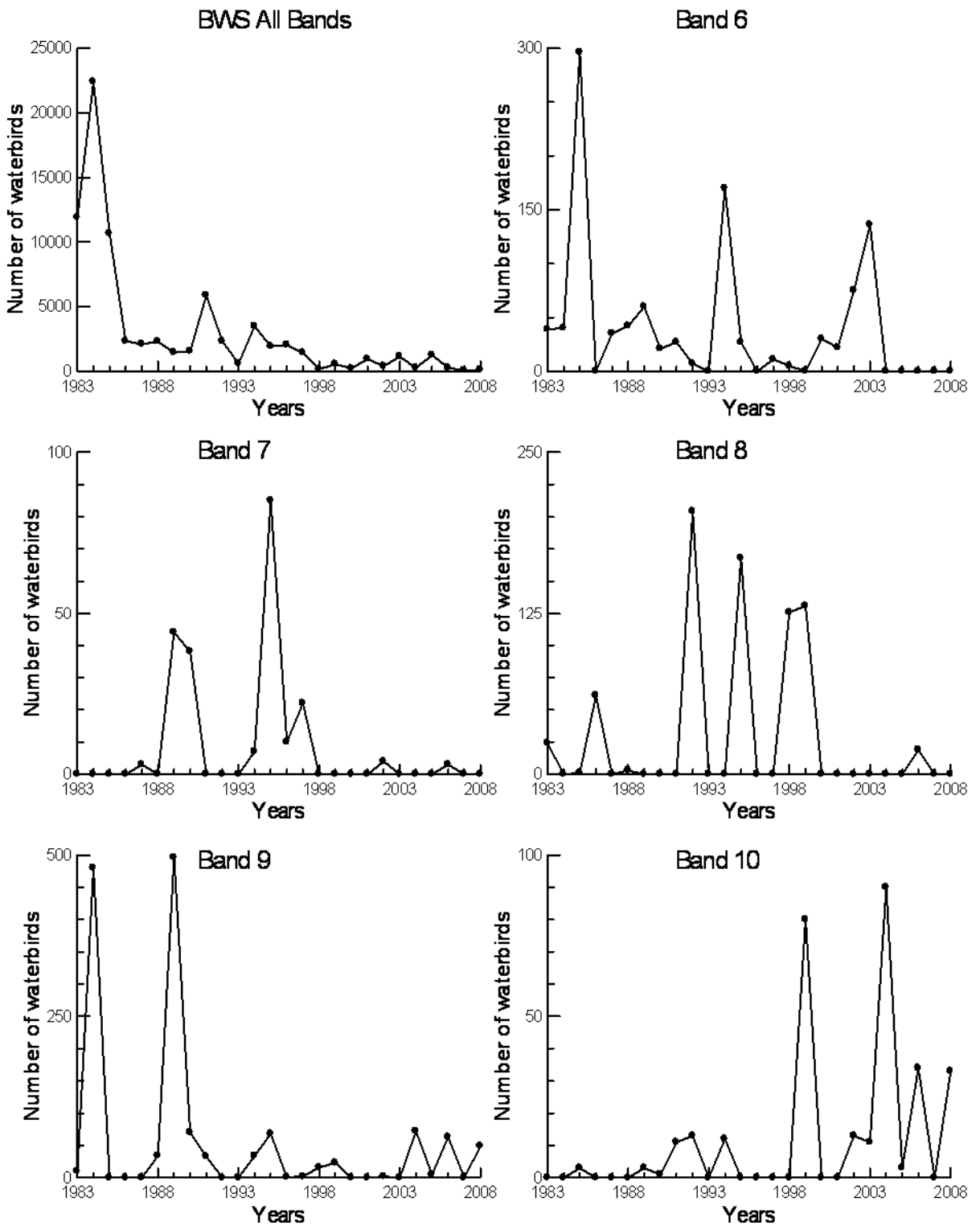
Scales vary on graphs

Figure 13. Australasian shoveler 1-5



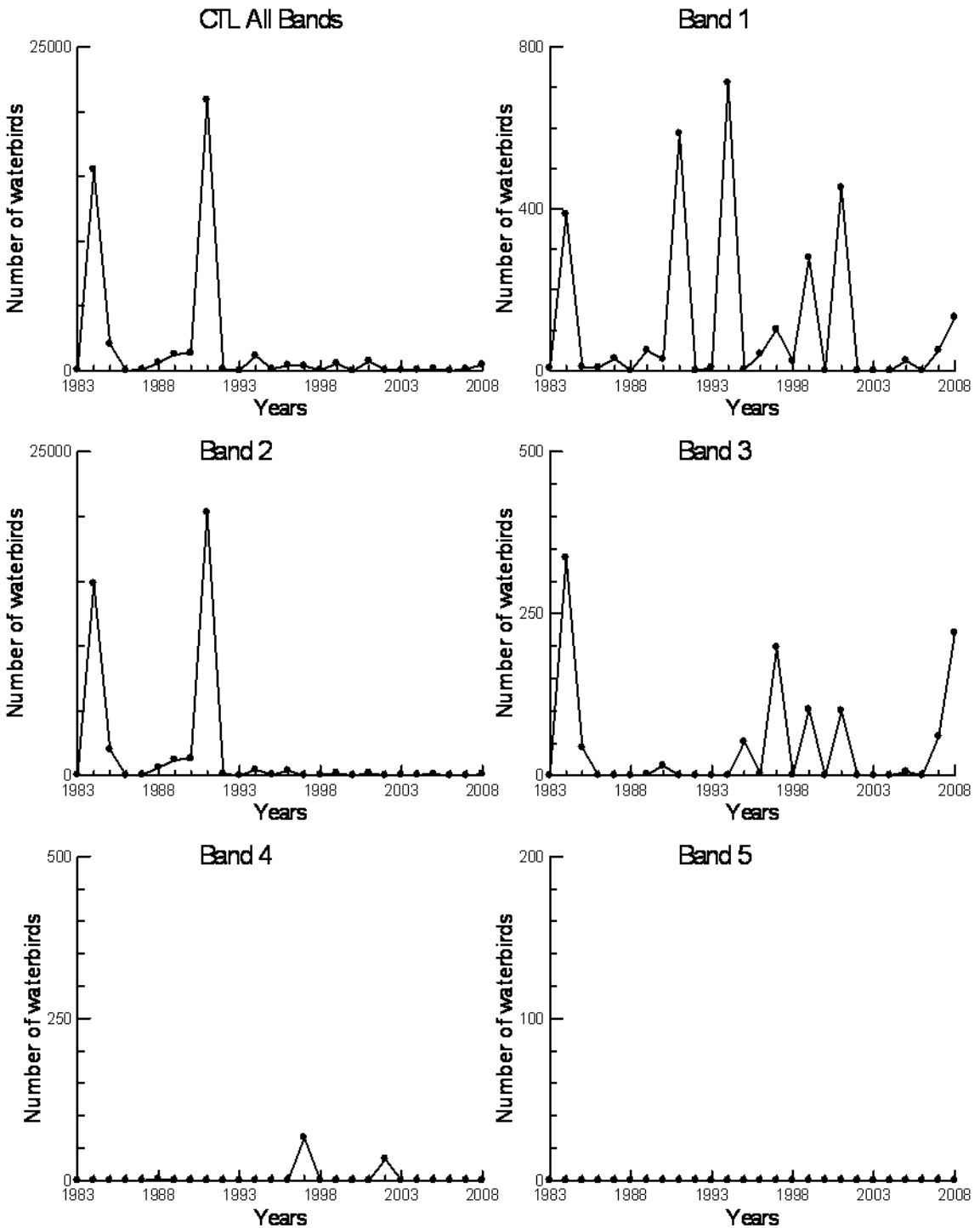
Scales vary on graphs

Figure 14. Australasian shoveler 6-10



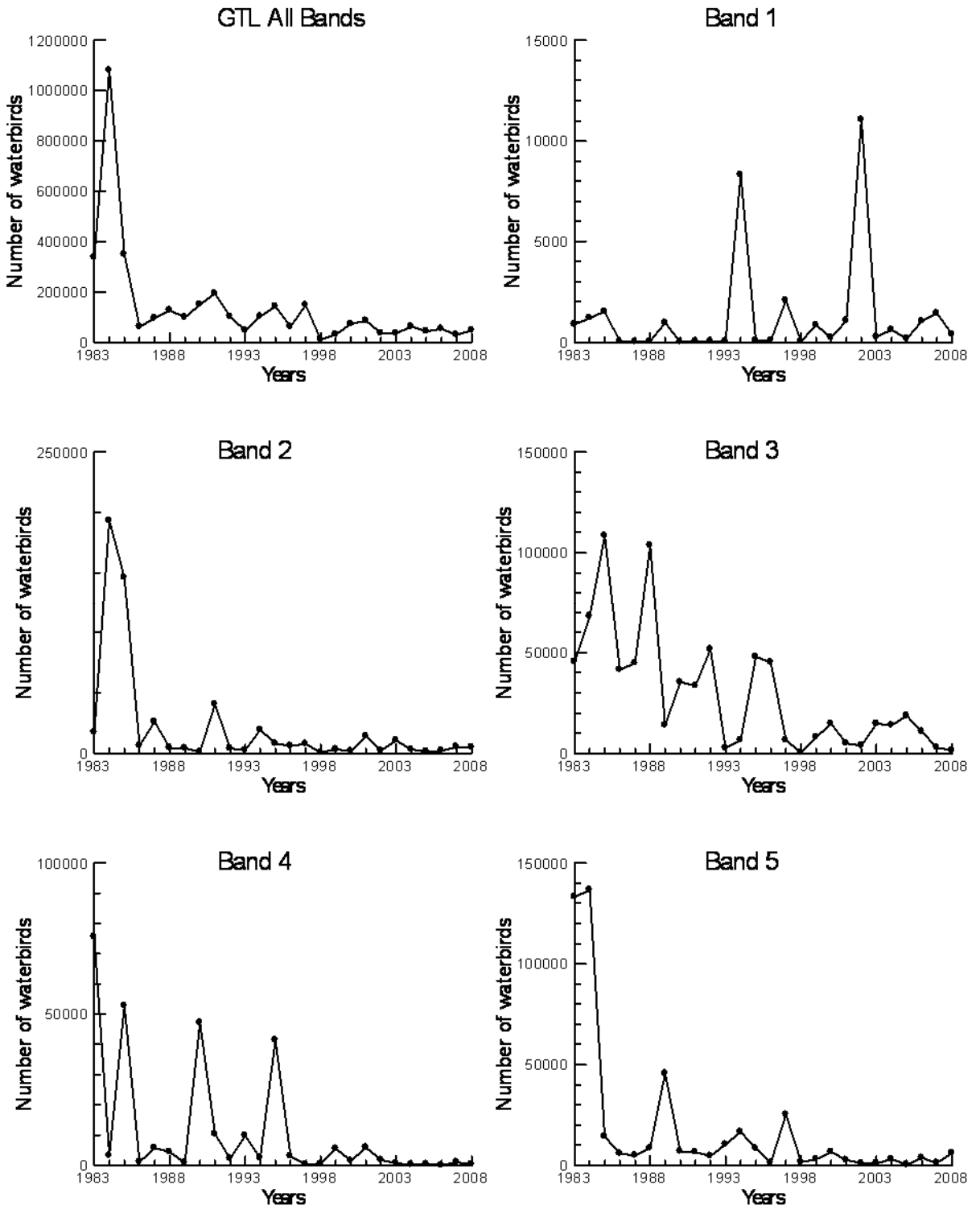
Scales vary on graphs

Figure 15. Chestnut teal 1-5



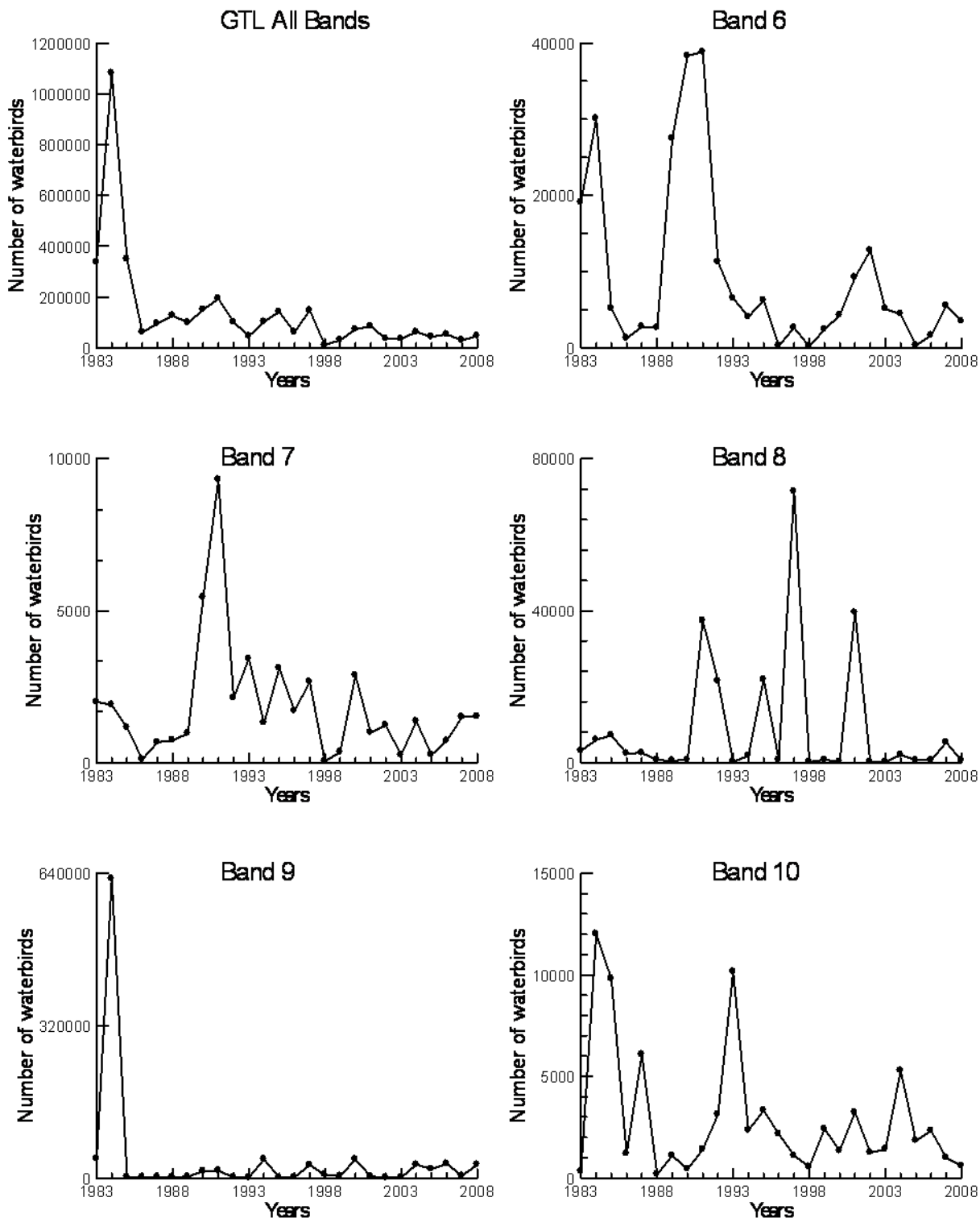
Scales vary on graphs

Figure 16. Grey teal 1-5



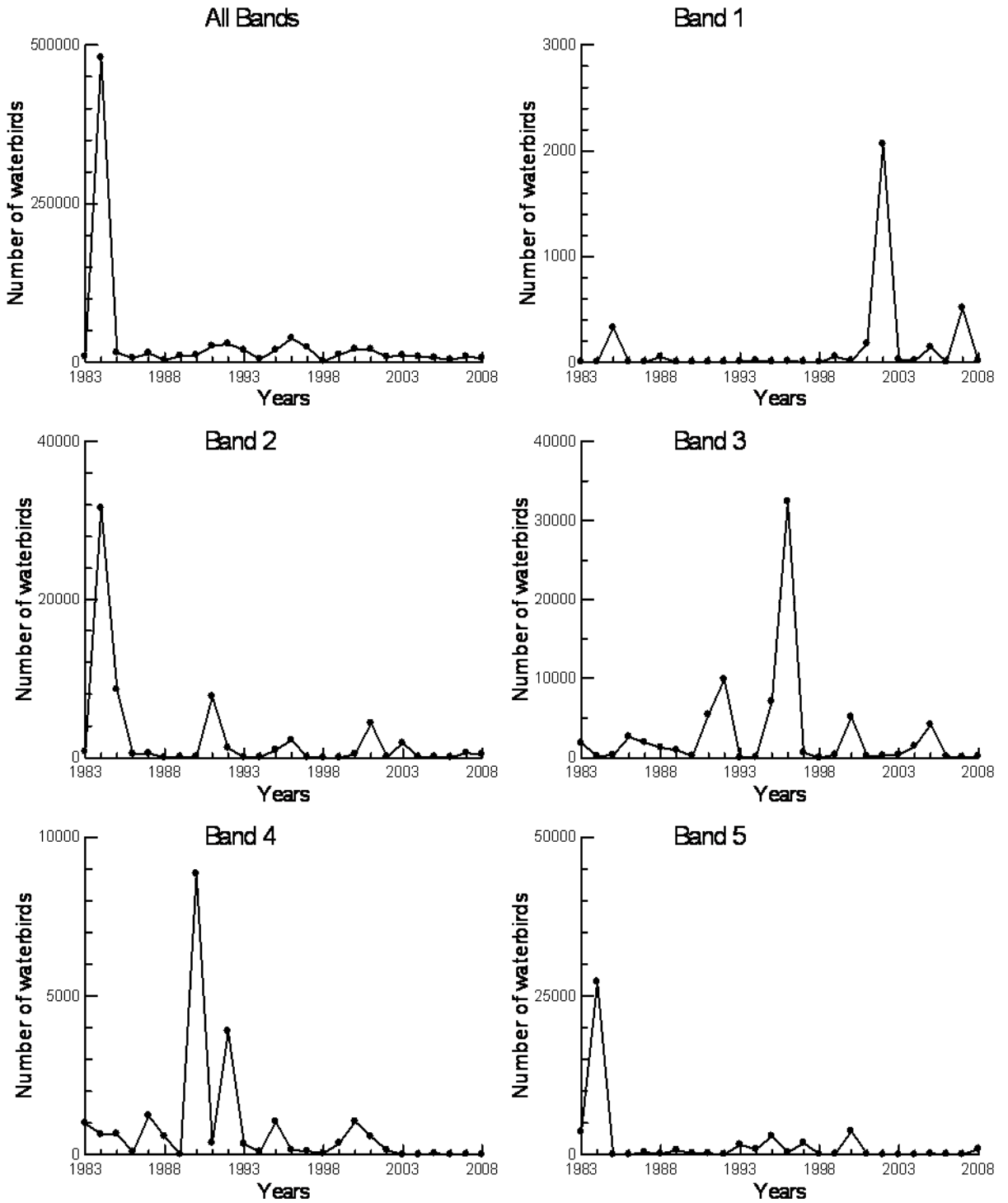
Scales vary on graphs

Figure 17. Grey teal 6-10



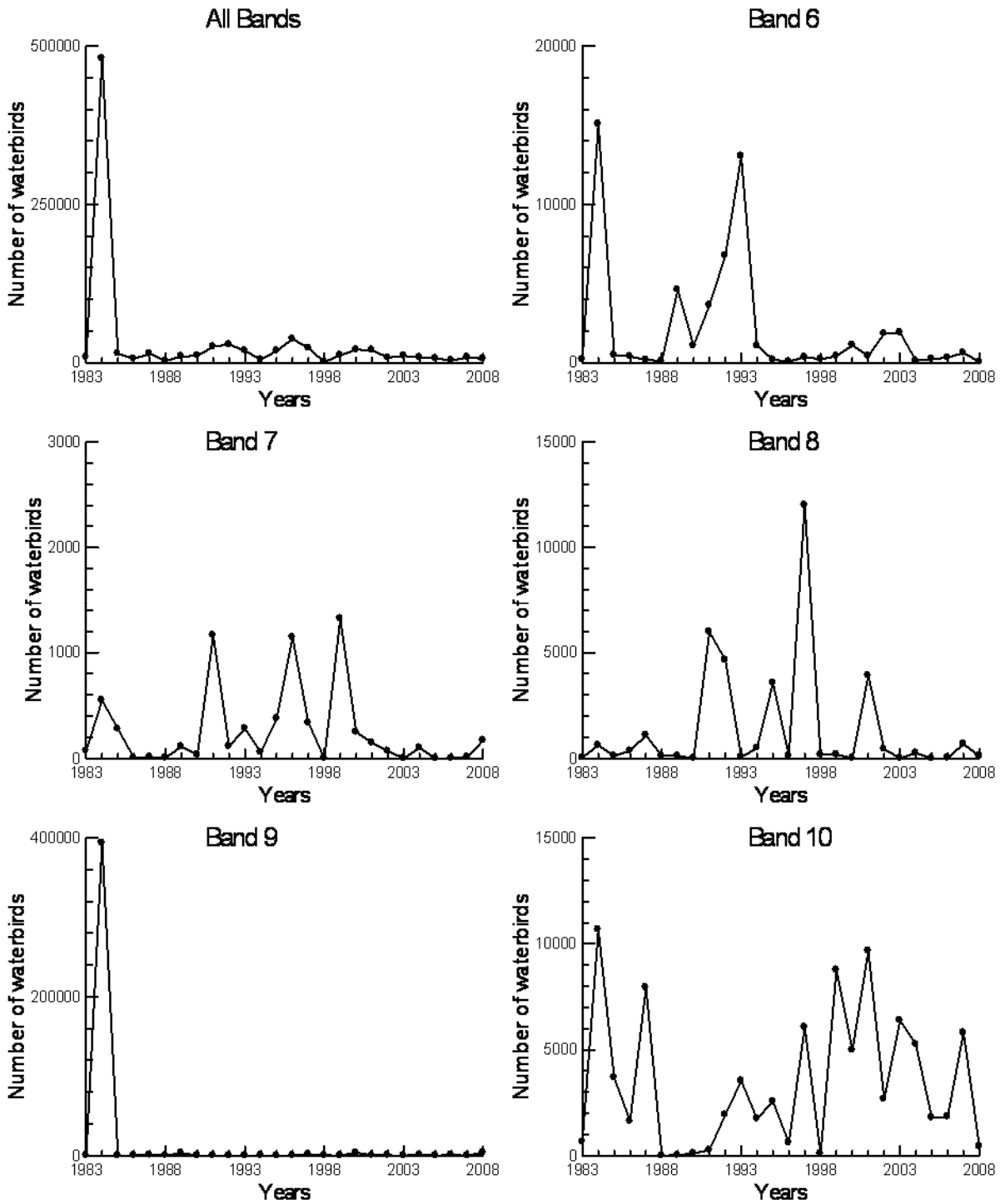
Scales vary on graphs

Figure 18. Hardhead 1-5



Scales vary on graphs

Figure 19. Hardhead 6-10



Scales vary on graphs

Figure 20. Freckled duck 1-5

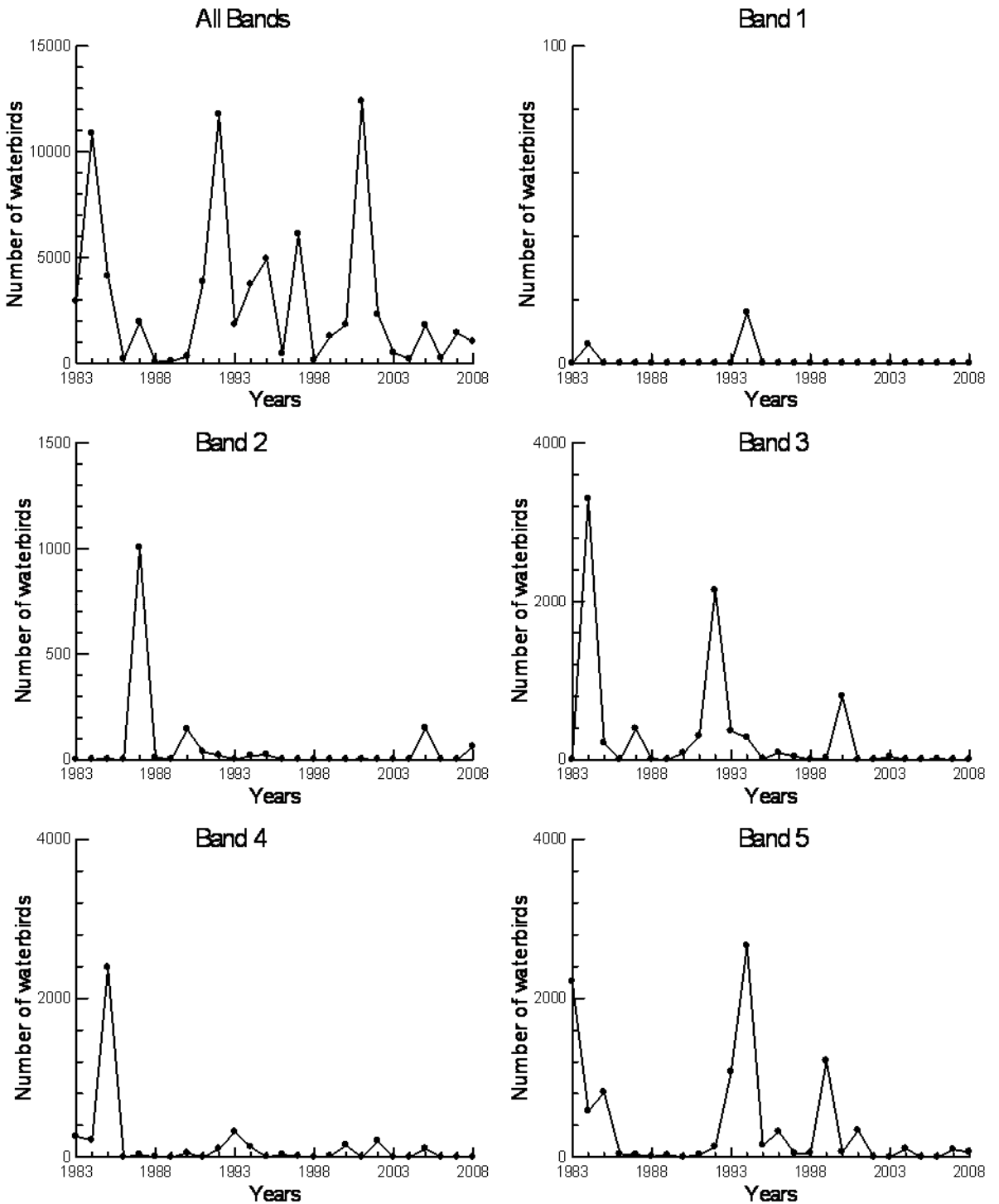
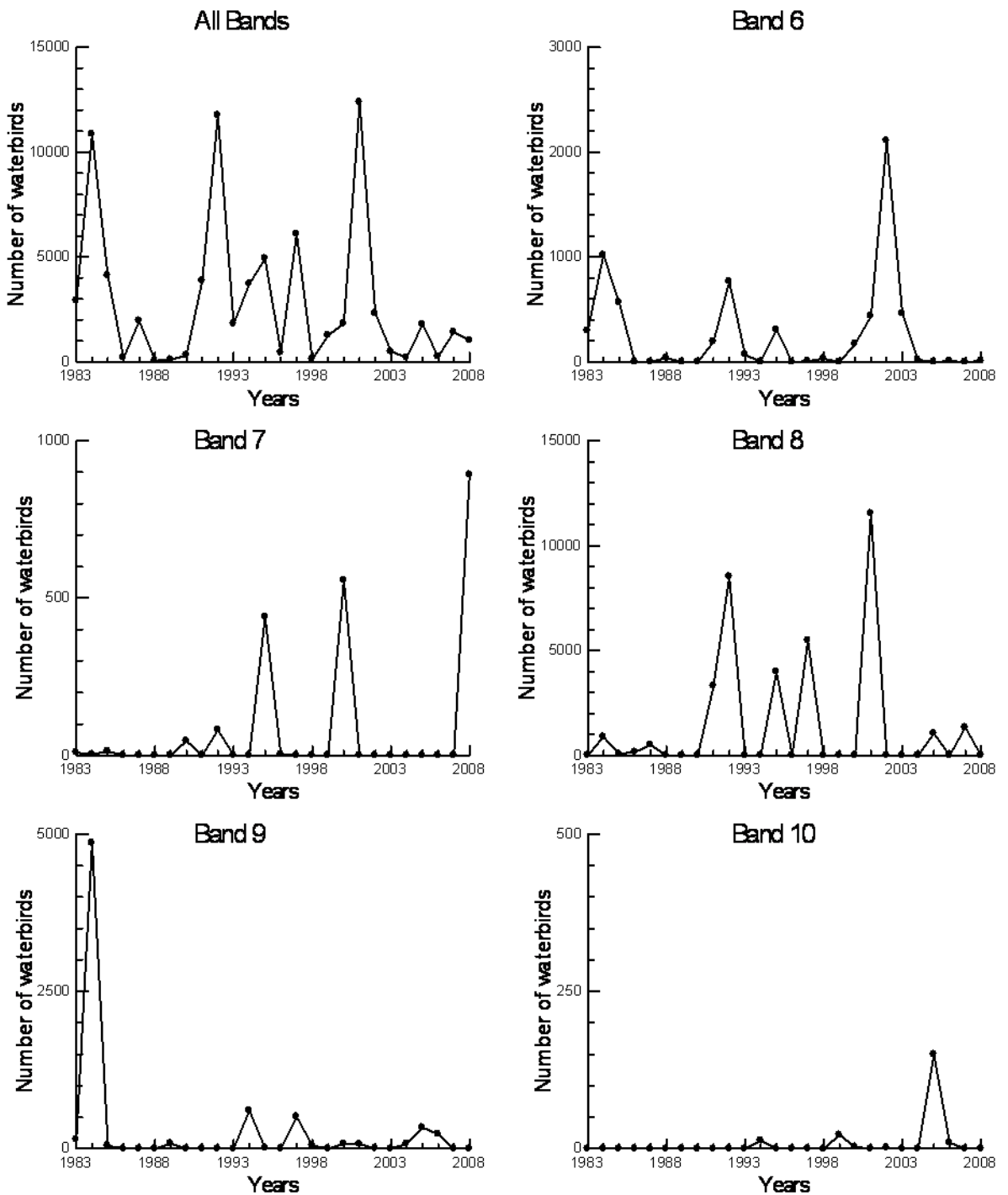
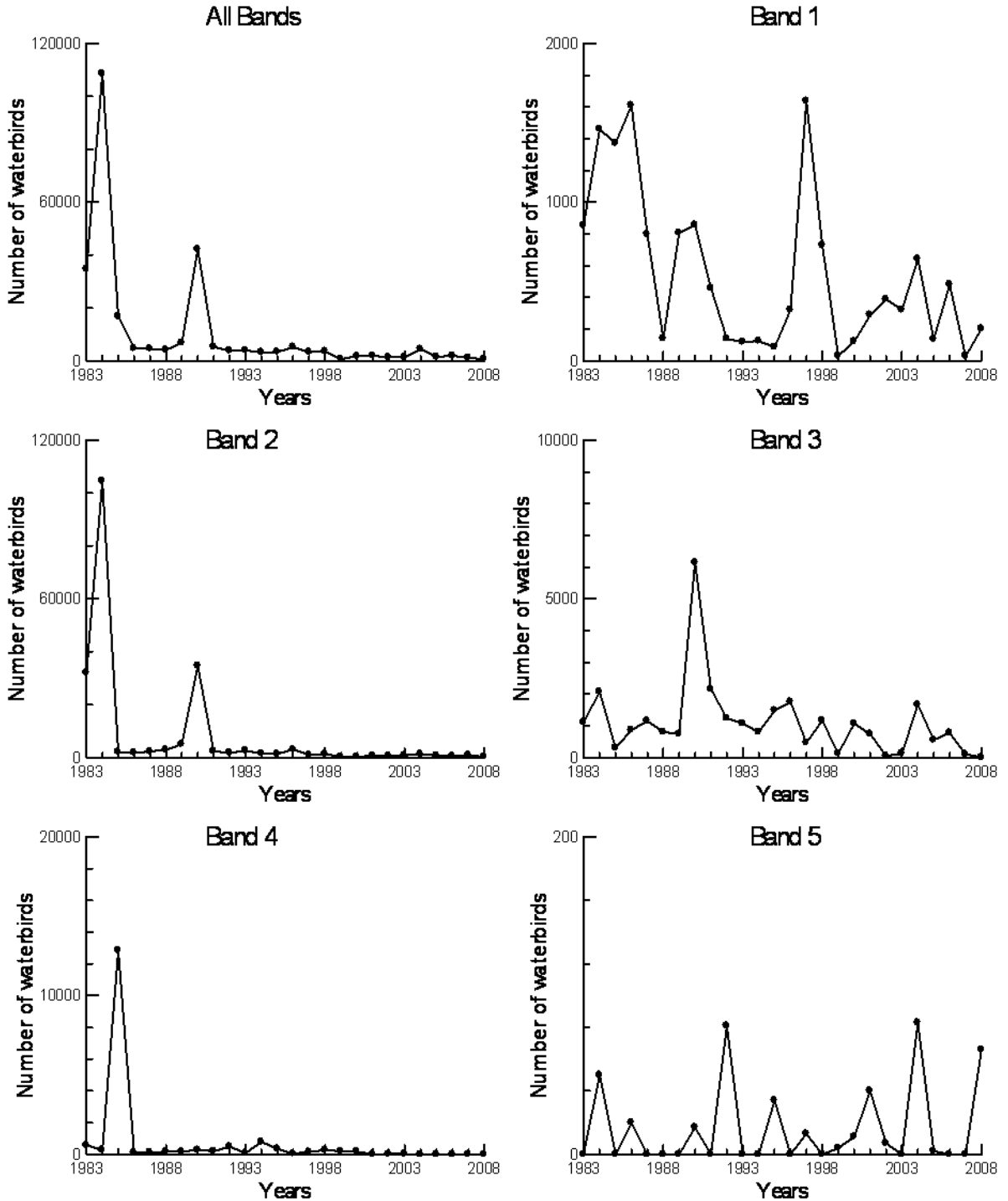


Figure 21. Freckled duck 6-10



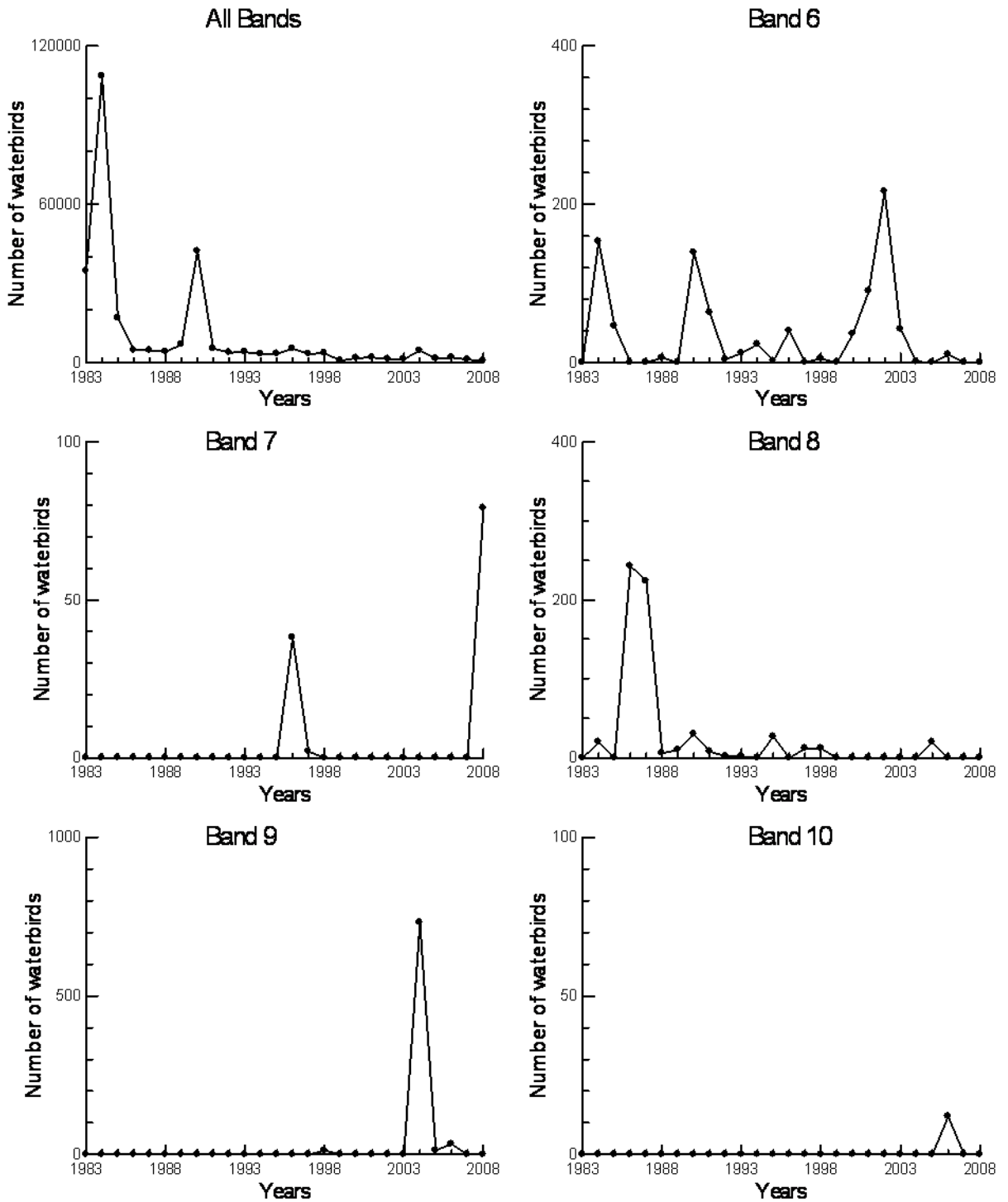
Scales vary on graphs

Figure 22. Australian shelduck 1-5



Scales vary on graphs

Figure 23. Australian shelduck 6-10



Scales vary on graphs

Figure 24. Pink-eared duck 1-5

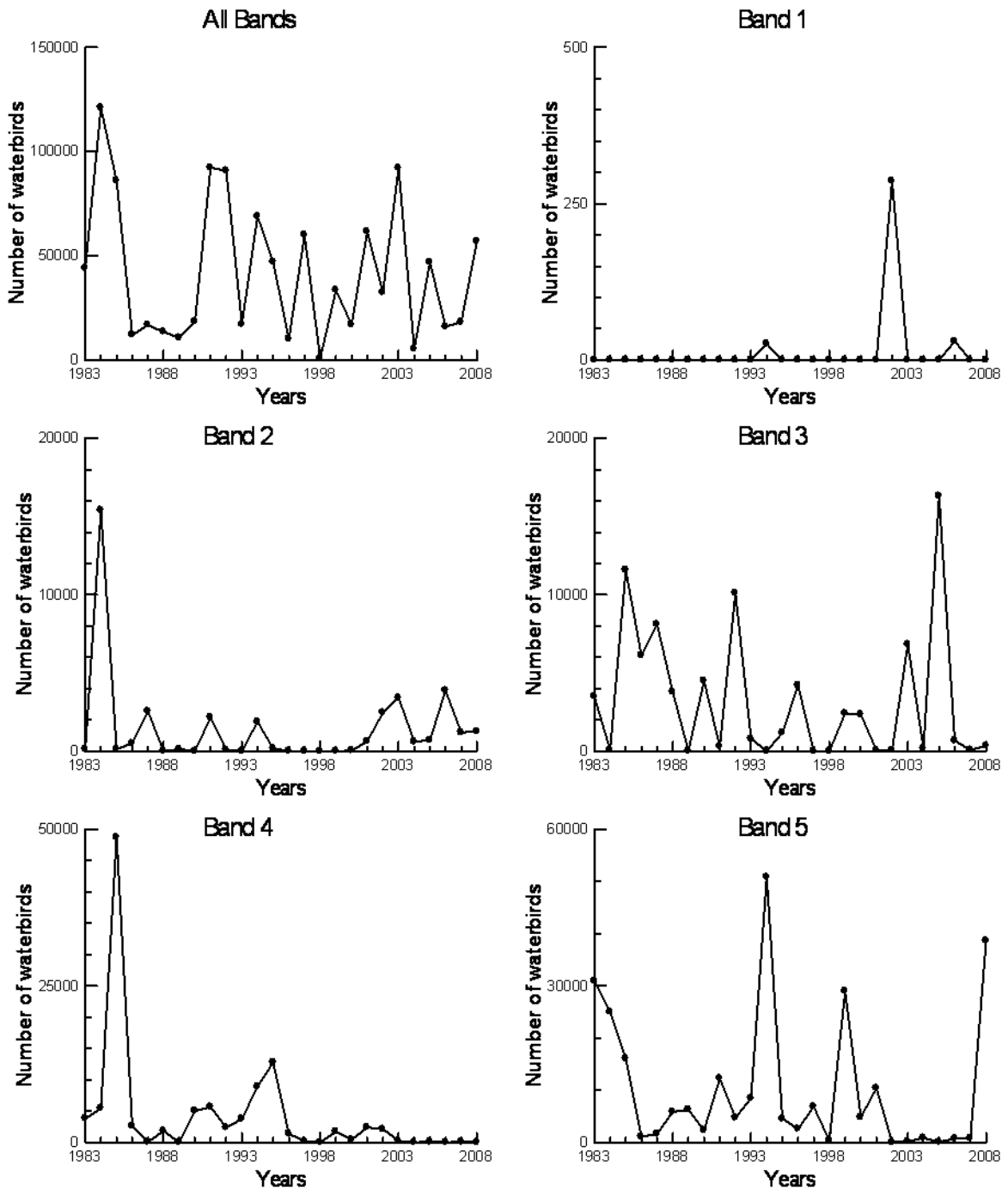


Figure 25. Pink-eared duck 6-10

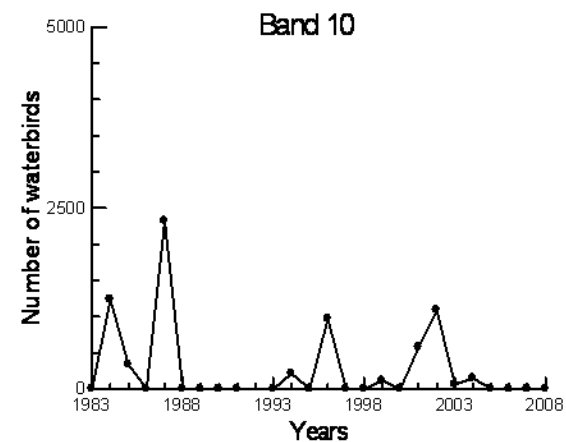
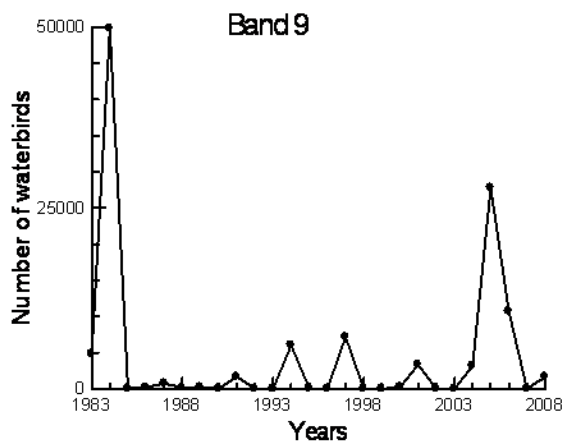
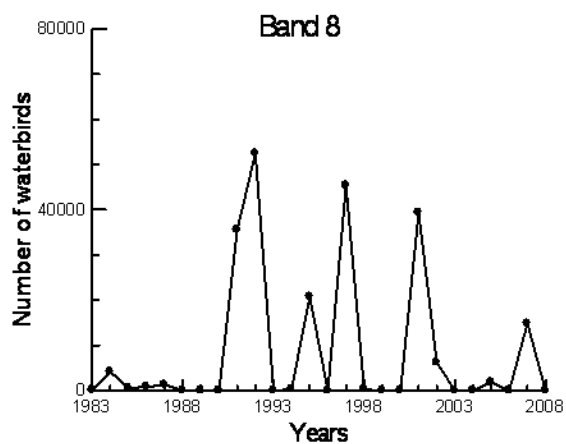
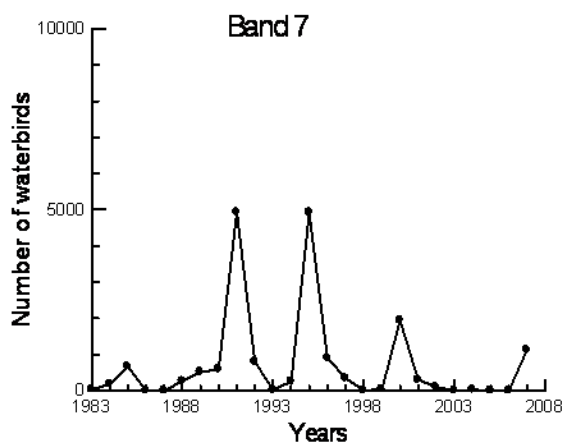
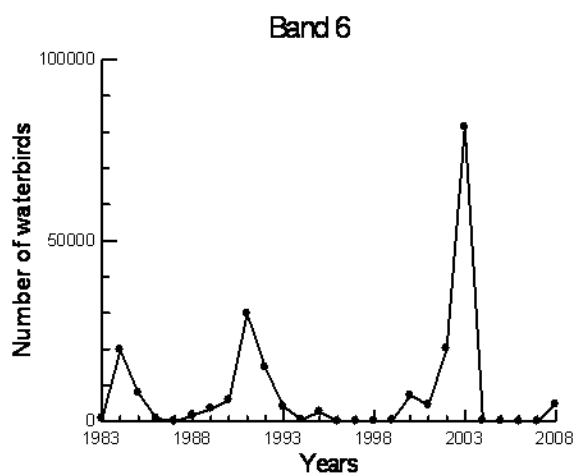
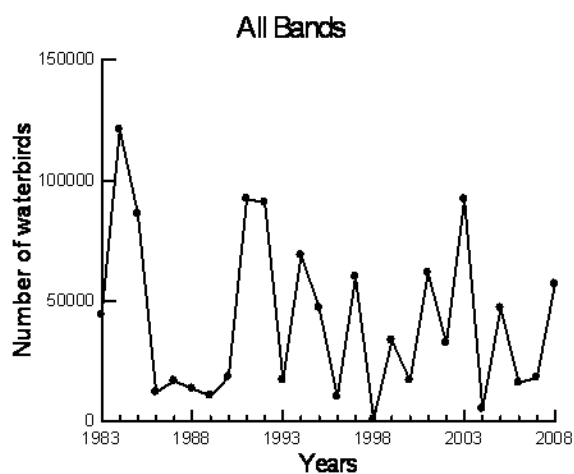
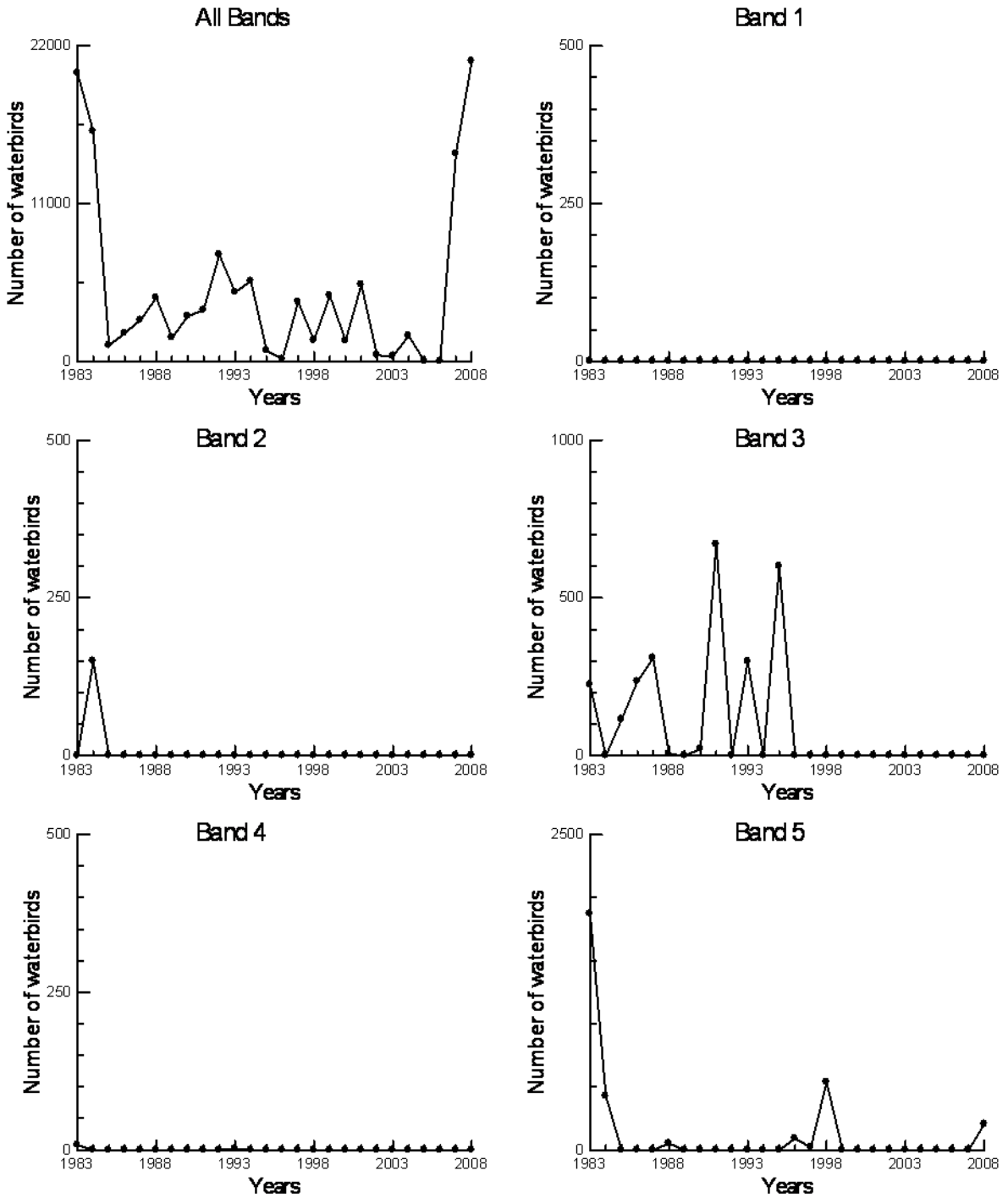
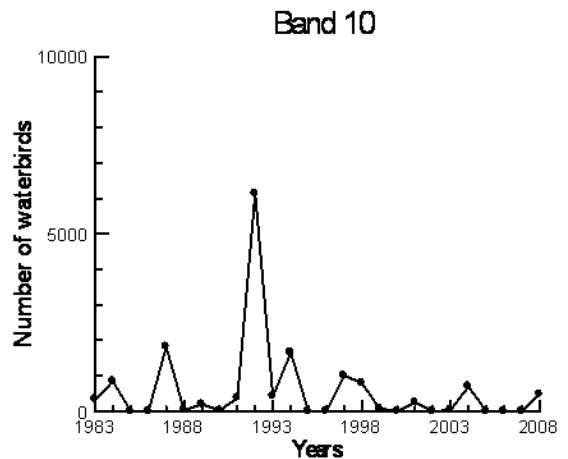
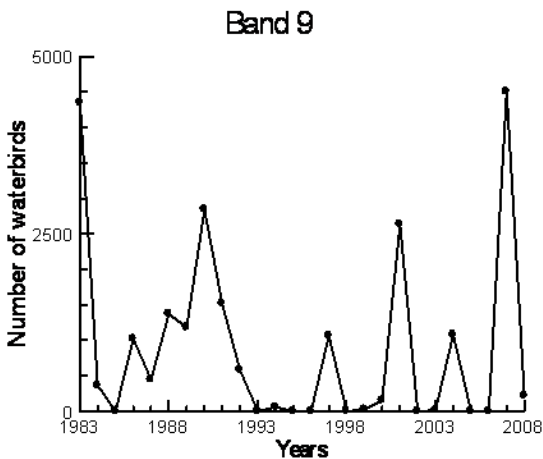
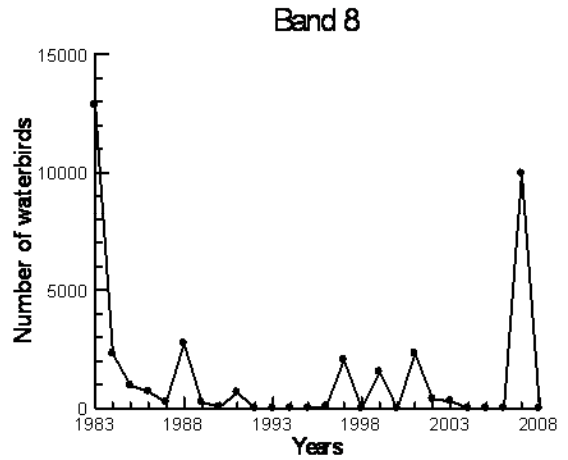
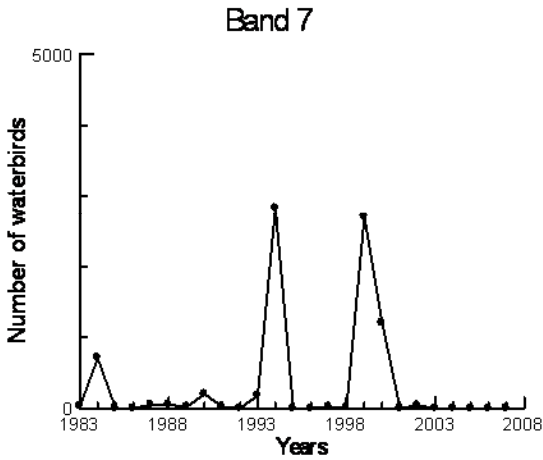
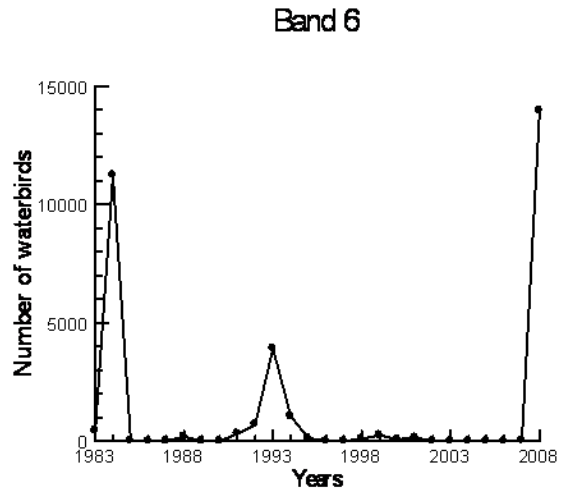
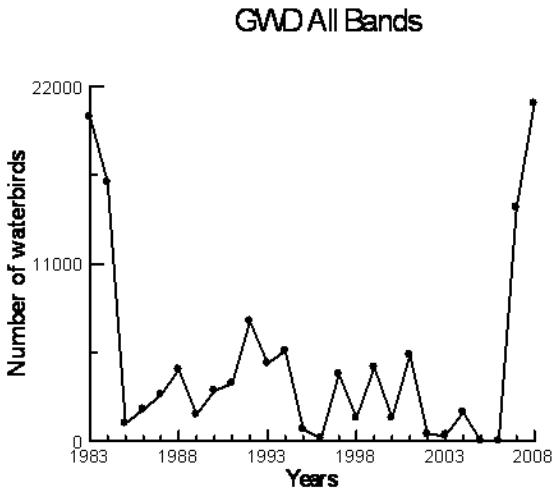


Figure 26. Plumed whistling-duck 1-5



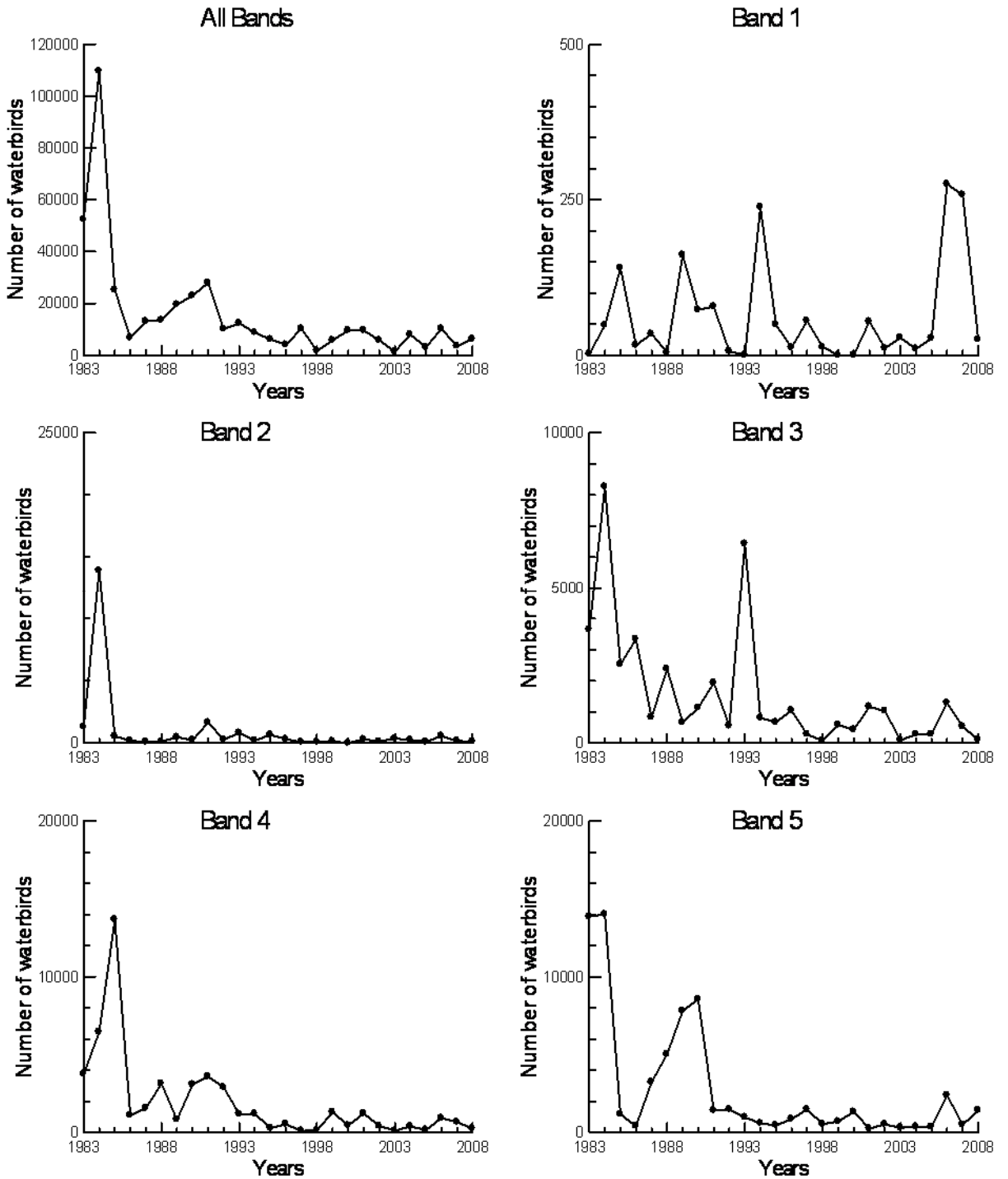
Scales vary on graphs

Figure 27. Plumed whistling-duck 6-10



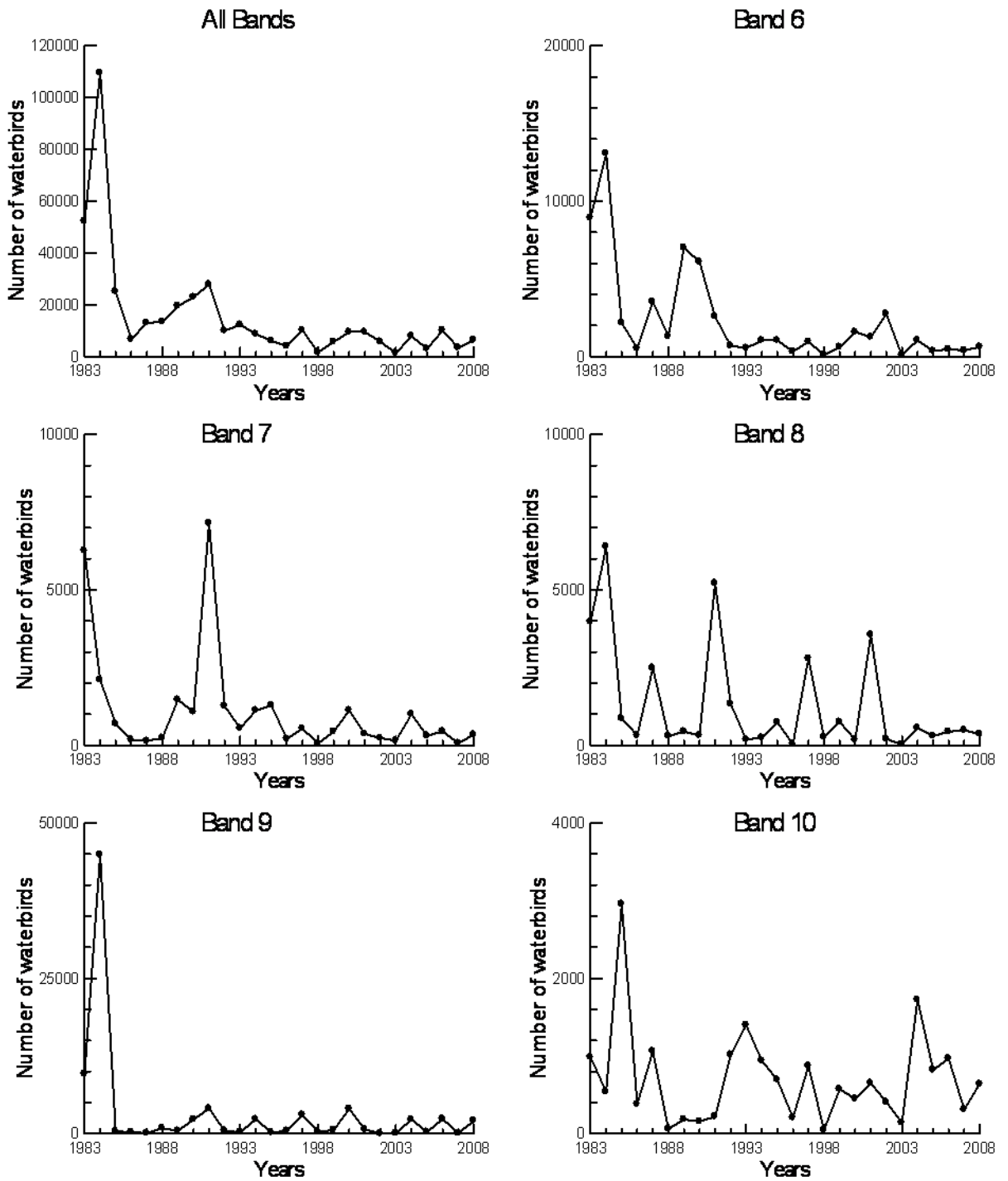
Scales vary on graphs

Figure 28. Australian wood duck 1-5



Scales vary on graphs

Figure 29. Australian wood duck 6-10



Scales vary on graphs