



## **Aerial Survey of Wetland Birds in Eastern Australia - October 2012 Annual Summary Report**

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### **Results summary**

1. Flooded areas contracted considerably throughout the eastern Australia survey area, with many floodplains no longer holding water. However, there was still widespread flooding in many major wetland systems of the Murray-Darling and Lake Eyre Basins (Fig. 1).
2. Wetland habitat was again extensive in the lower Cooper Creek system although there was no flow and water was confined to larger lakes; the area supported large concentrations of waterbirds. Lake Eyre was dry.
3. Throughout the Murray-Darling Basin, many of the larger wetlands areas had water. This included widespread waterbird habitat on the Paroo River, including the Paroo overflow lakes, Cuttaburra channels, Macquarie Marshes, Lowbidgee wetlands and Menindee Lakes. Similarly, there were relatively large flooded areas throughout Victoria and South Australia.
4. The wetland area index continued to decline from 2010 and 2011 levels but remained near the long term average (Fig. 2). Since 1983 wetland area index has declined significantly.
5. There was a decrease in total numbers of birds estimated compared to 2011 (Fig. 3). Waterbirds were beginning to aggregate on the major wetland areas compared to the previous two years. Overall waterbird abundance has continued to decline significantly since 1983.

**This survey is run by the University of NSW and the NSW Office of Environment & Heritage, with additional funding provided by the South Australian Department of Environment and Heritage, the Queensland Department of Environment and Resource Management and the Victorian Department of Sustainability and Environment.**

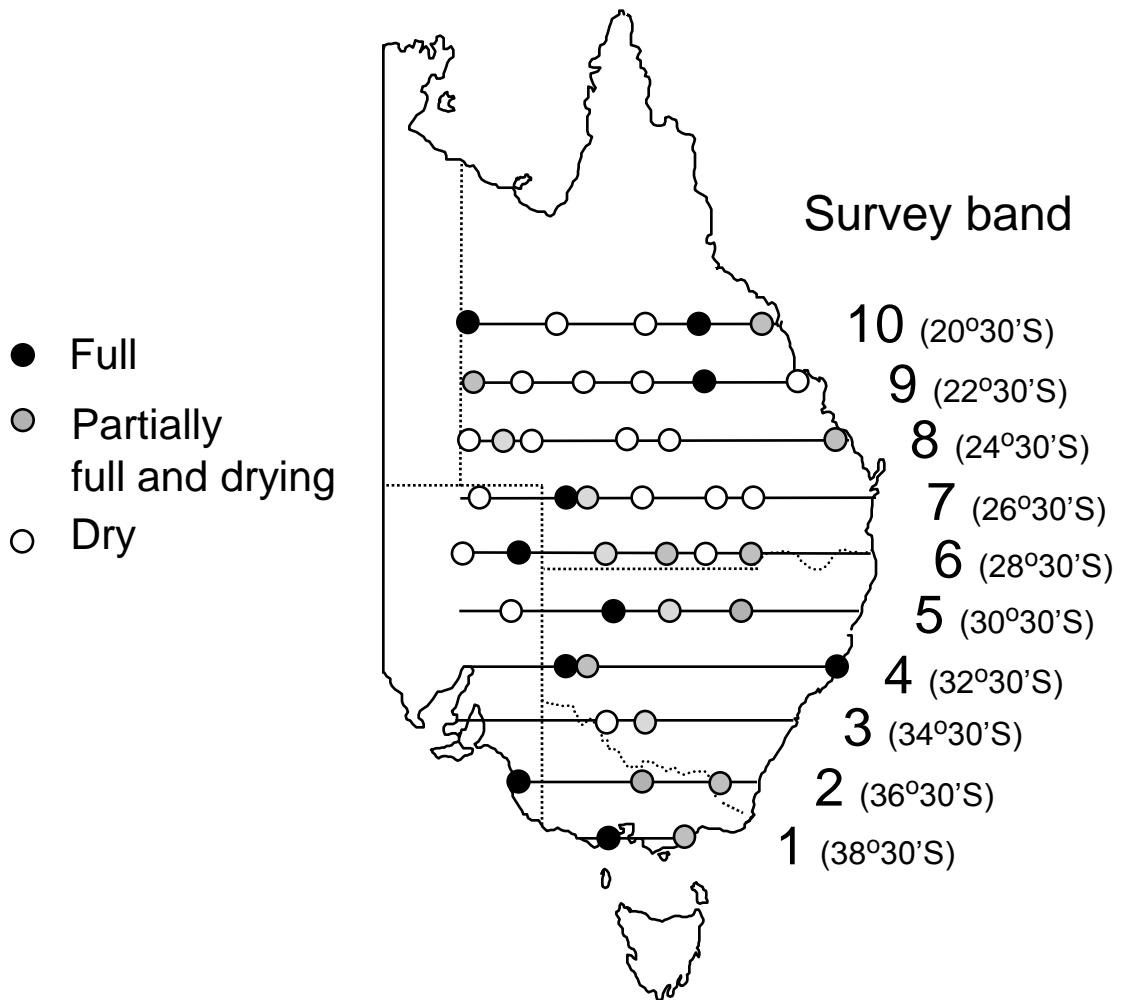
## **Result summary continued**

7. The breeding index (all species combined) declined below 2011 and considerably lower than 2010. Most of the birds recorded breeding (96%) were non-game species (Straw-necked ibis, Black Swans, Royal Spoonbill). Breeding species richness was below the long term average and the data show a significant negative decline over time.

## **Acknowledgements**

We thank Terry Korn and Paul Wainwright for acting as expert observers during the survey, Richard Byrne of NSW National Parks and Wildlife, NSW Office of Environment and Heritage for piloting aircraft. We also thank Kate Brandis, Viyanna Leo and Hazel Watson for their help with data entry and validation.

Figure 1. Wetland map 2012



**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

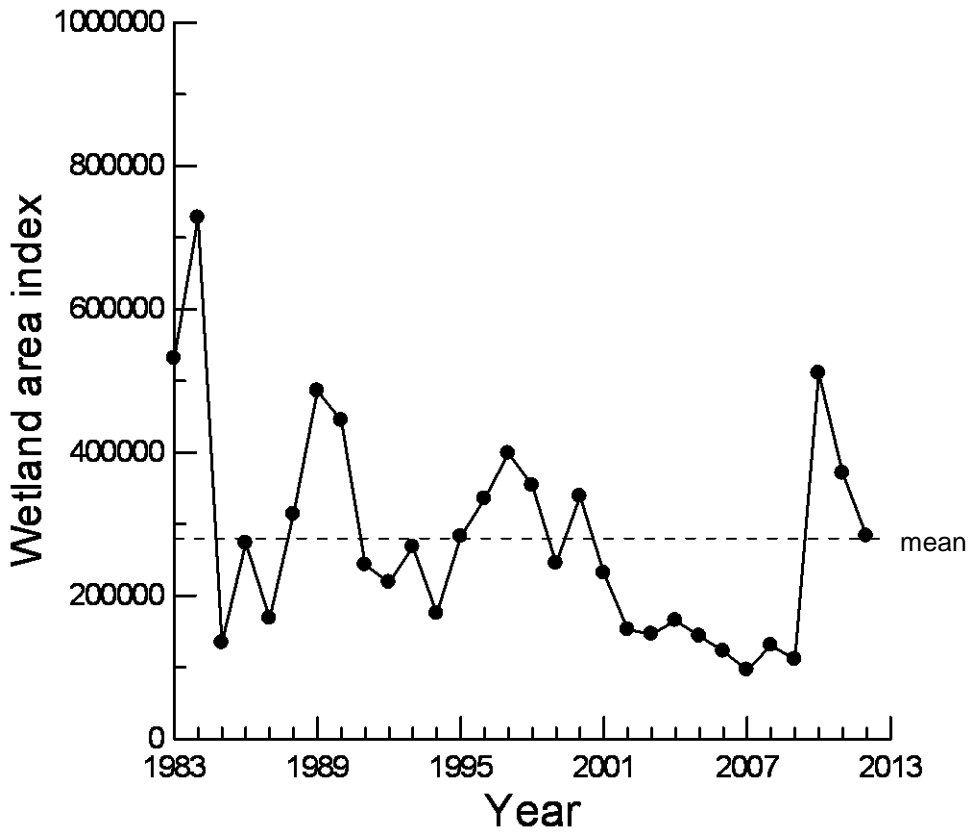


Figure 3. Total waterbirds

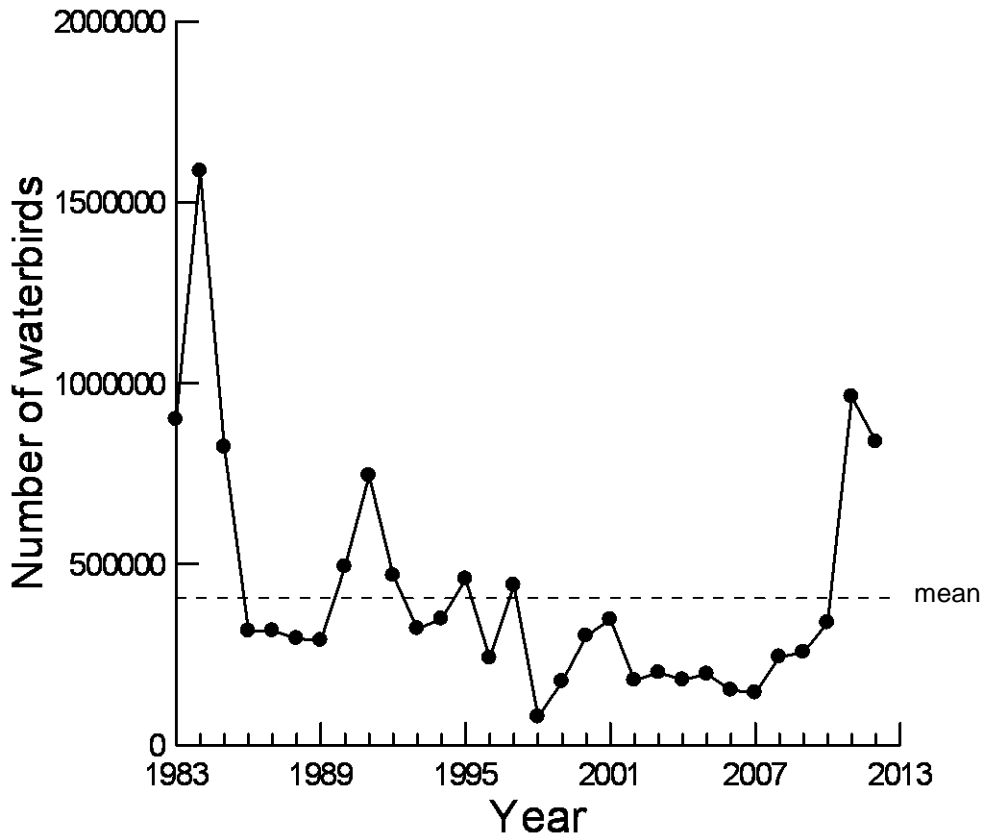
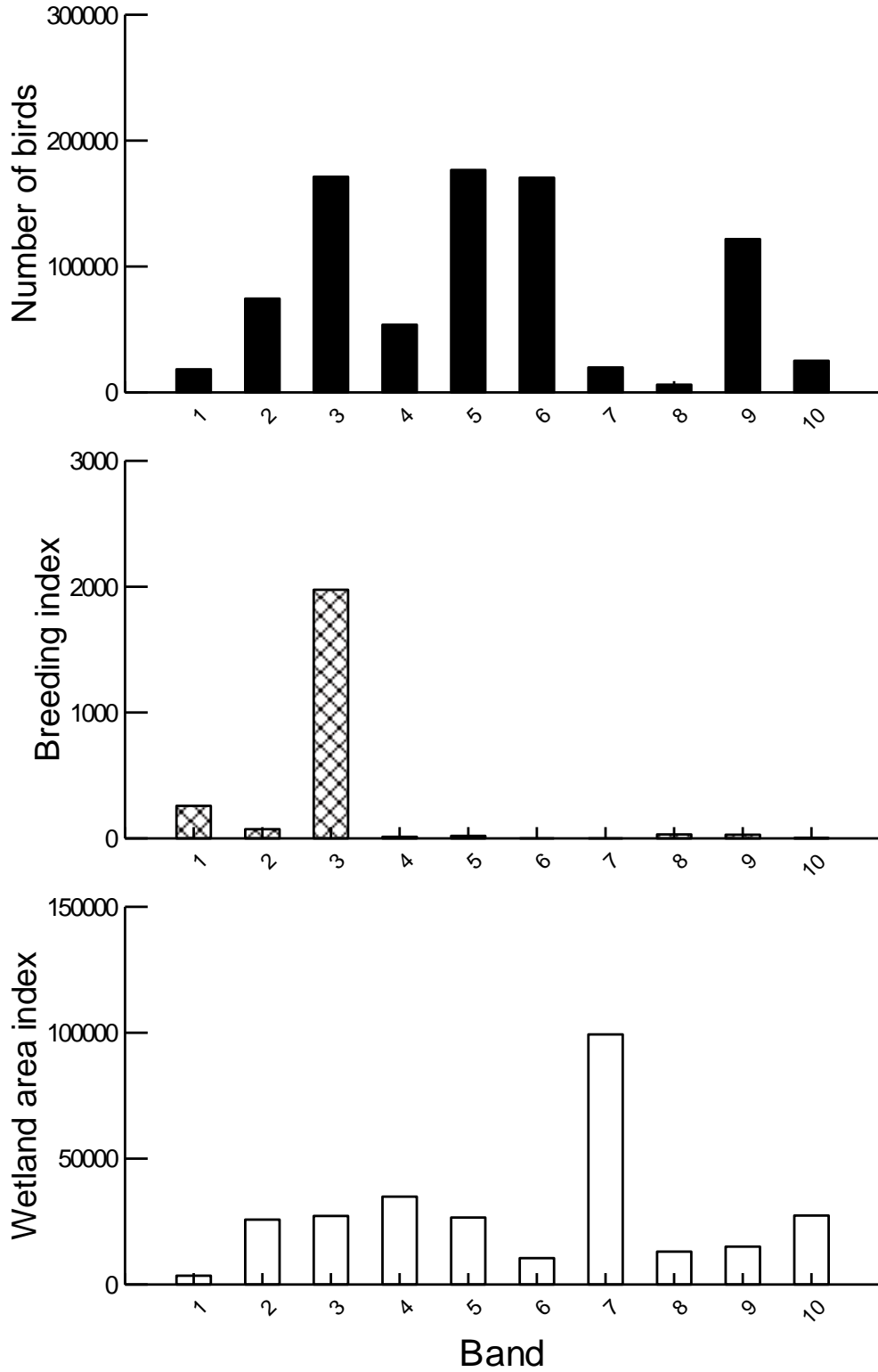


Figure 4. Band totals 2012



Scales vary on graph axes

Figure 5. Breeding index (all species)

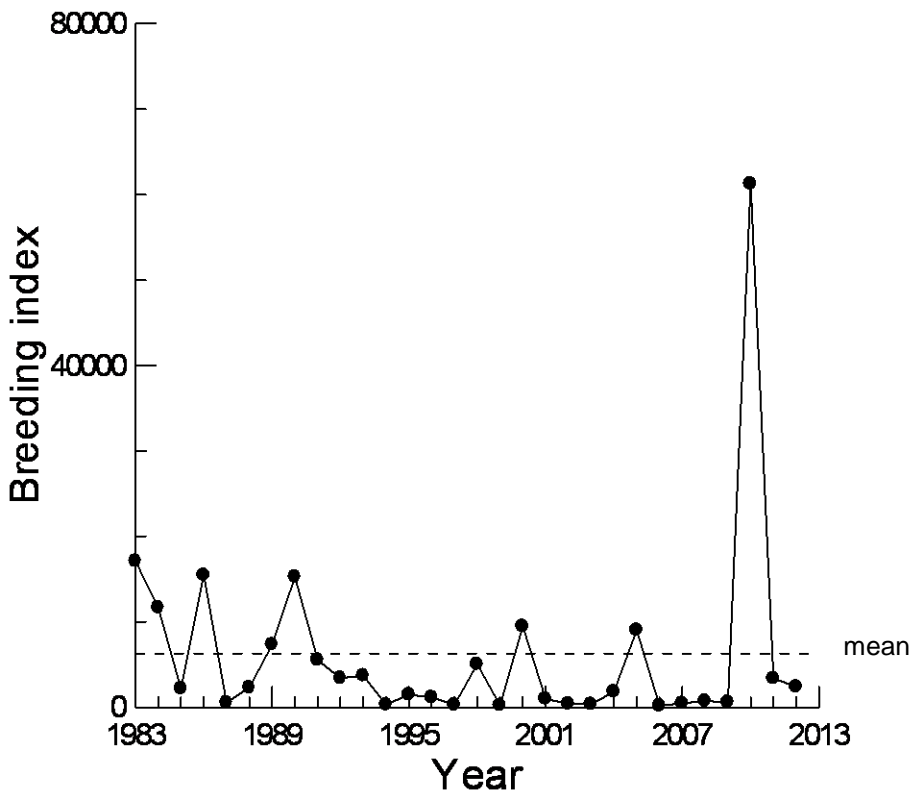
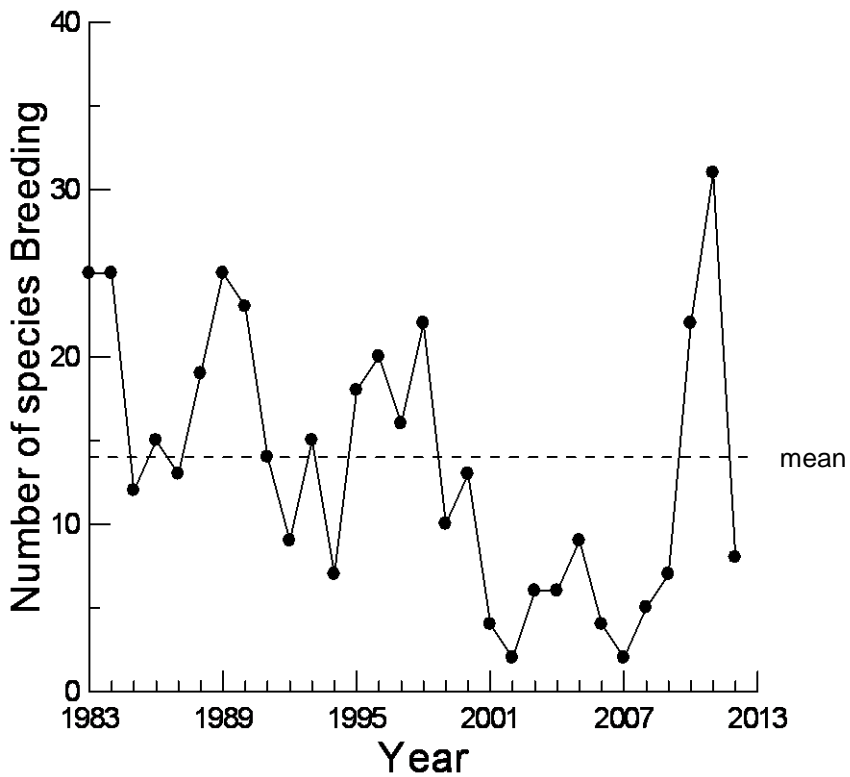
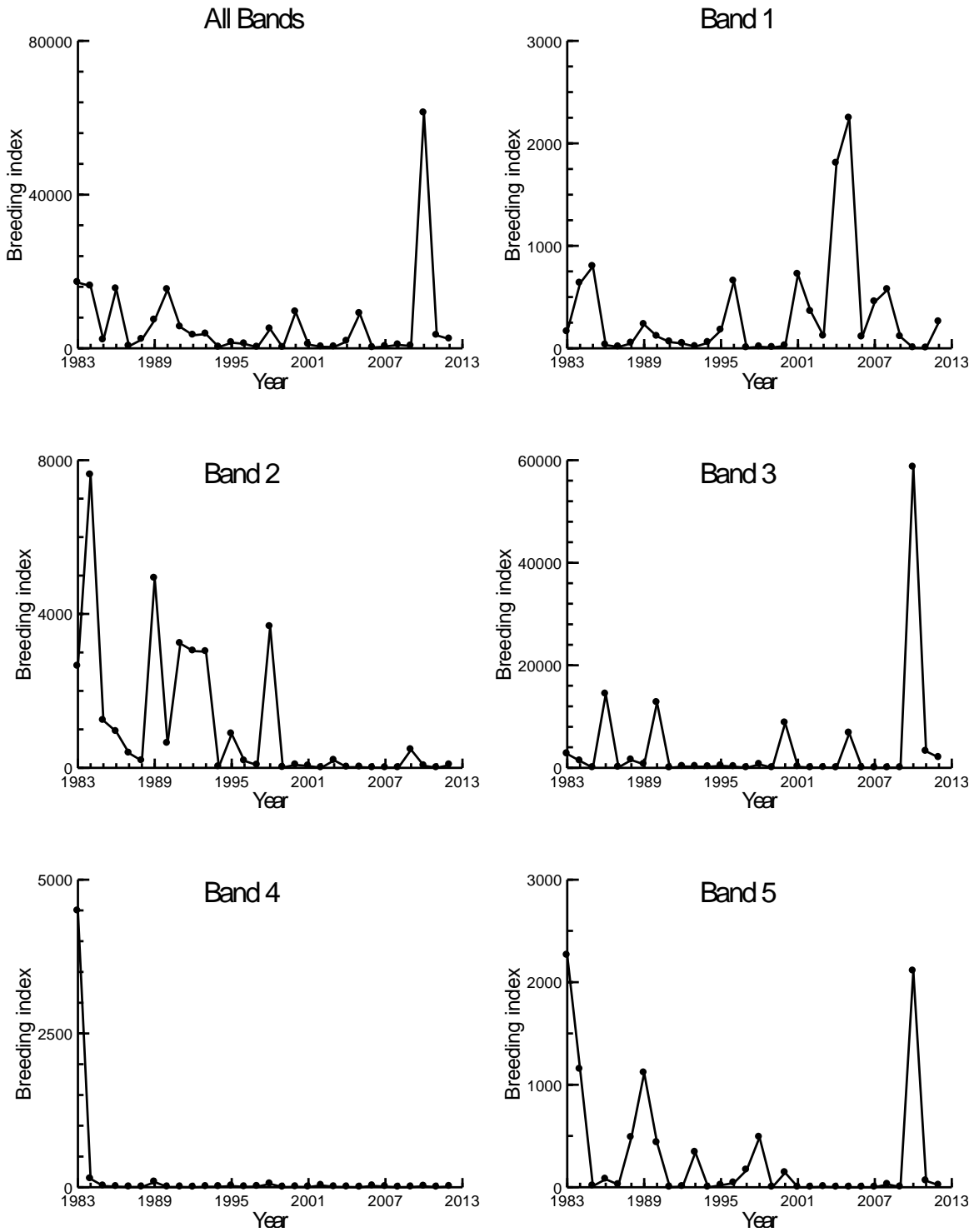


Figure 6. Number of species breeding



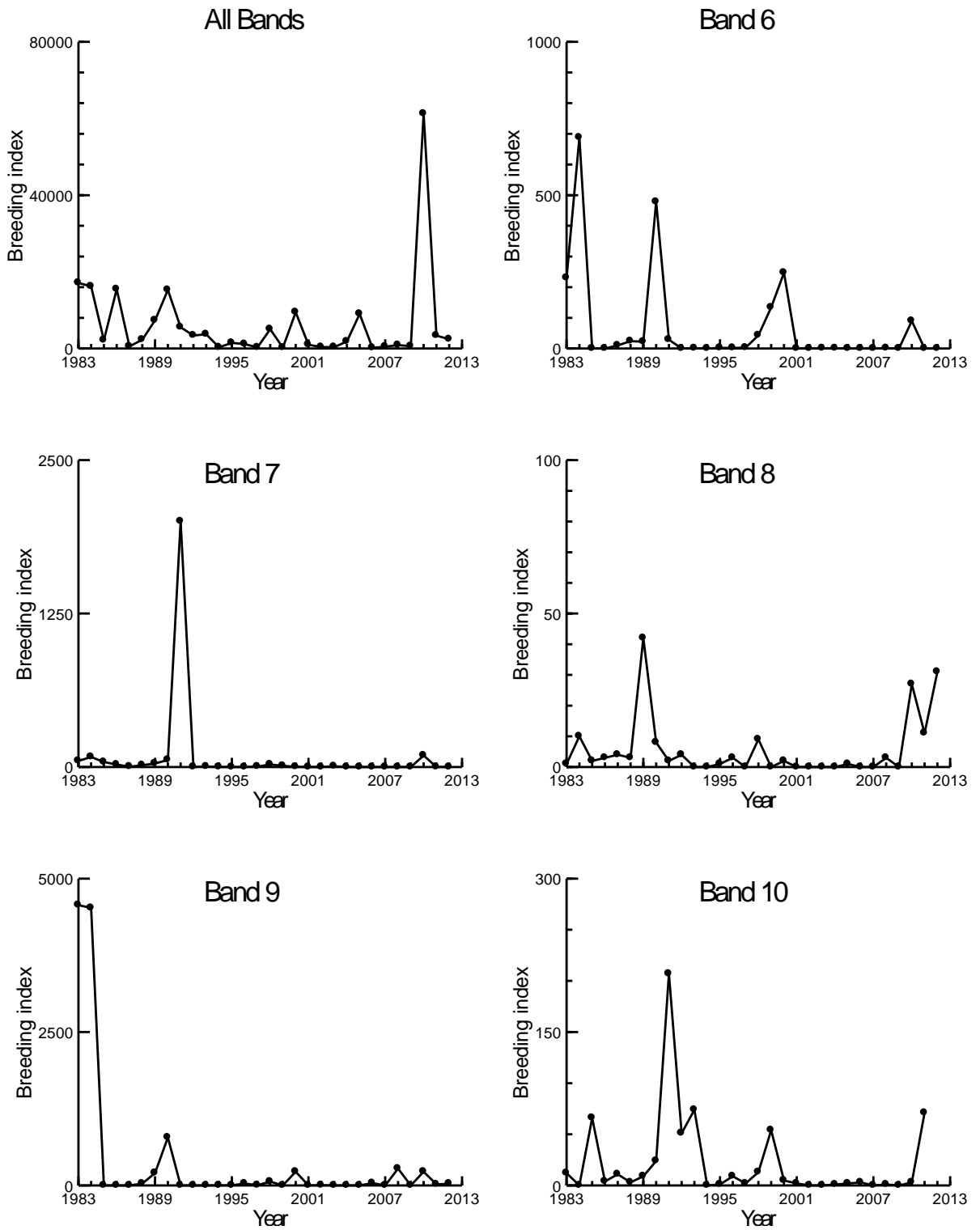
Scales vary on graph axes

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



Scales vary on graphs

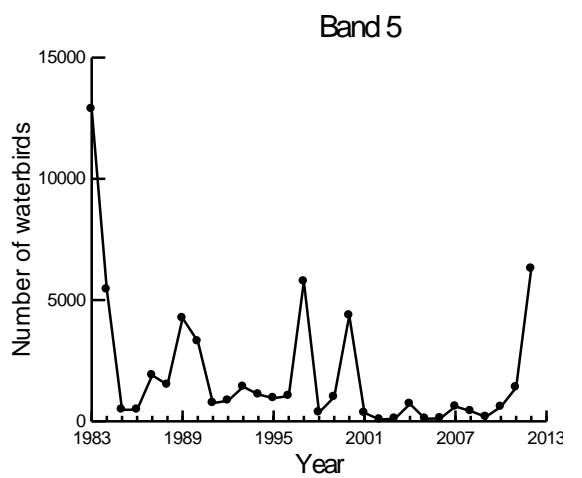
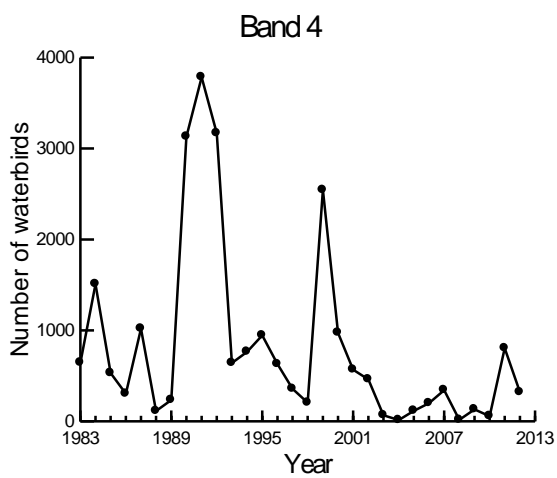
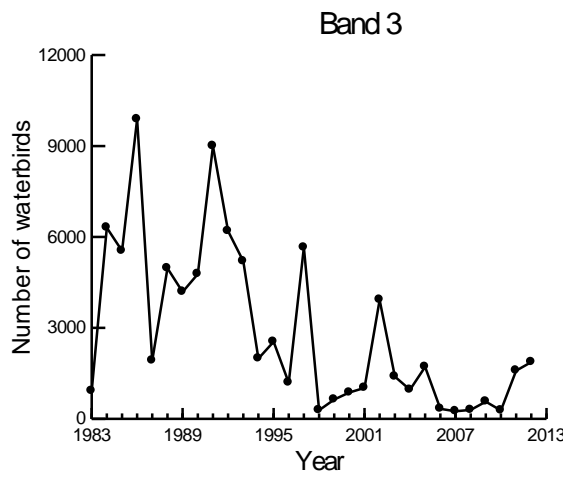
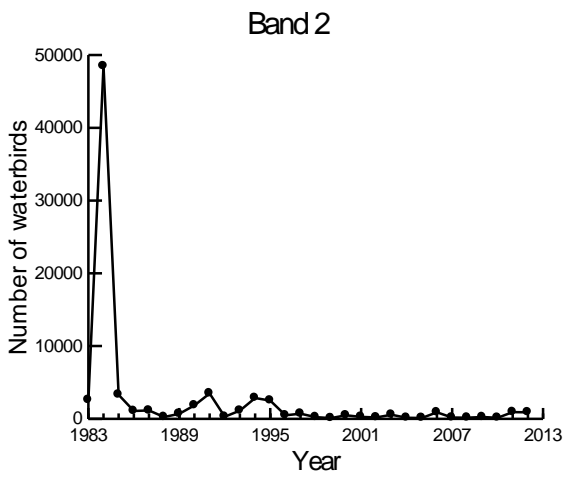
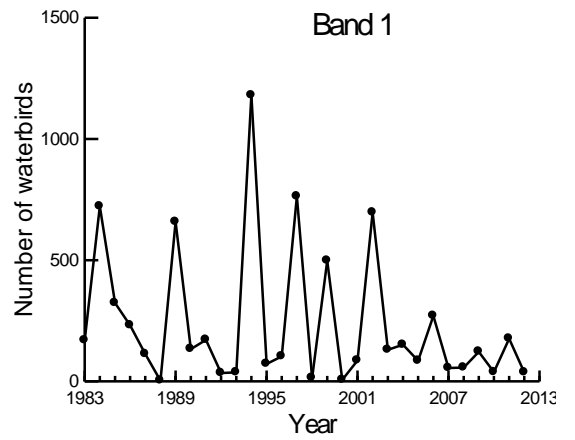
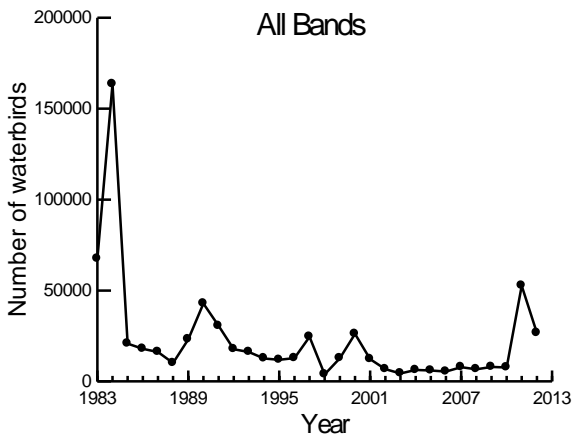
Figure 8. Breeding index (all species) 6-10



Scales vary on graphs

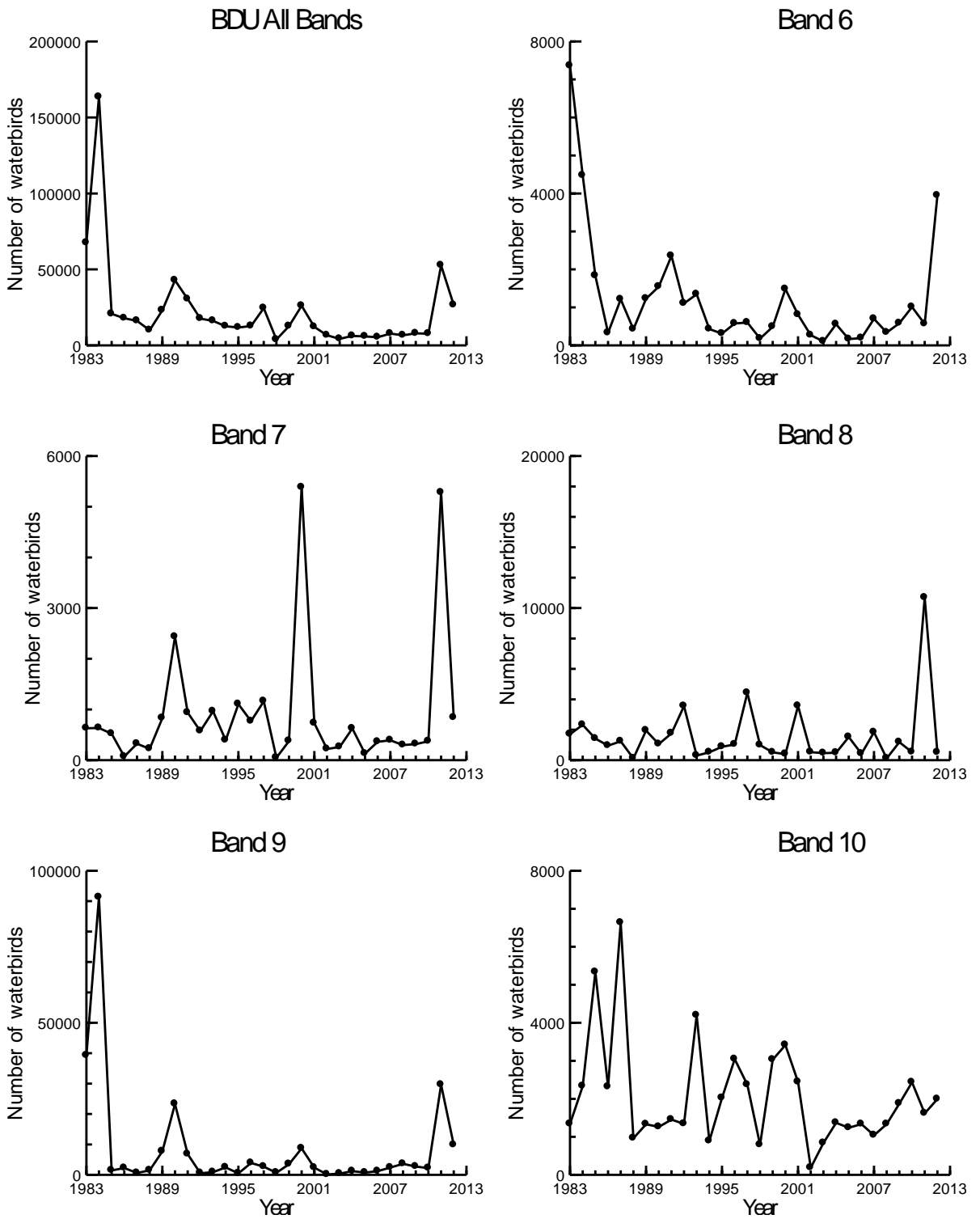


# Figure 9. Pacific black duck 1-5



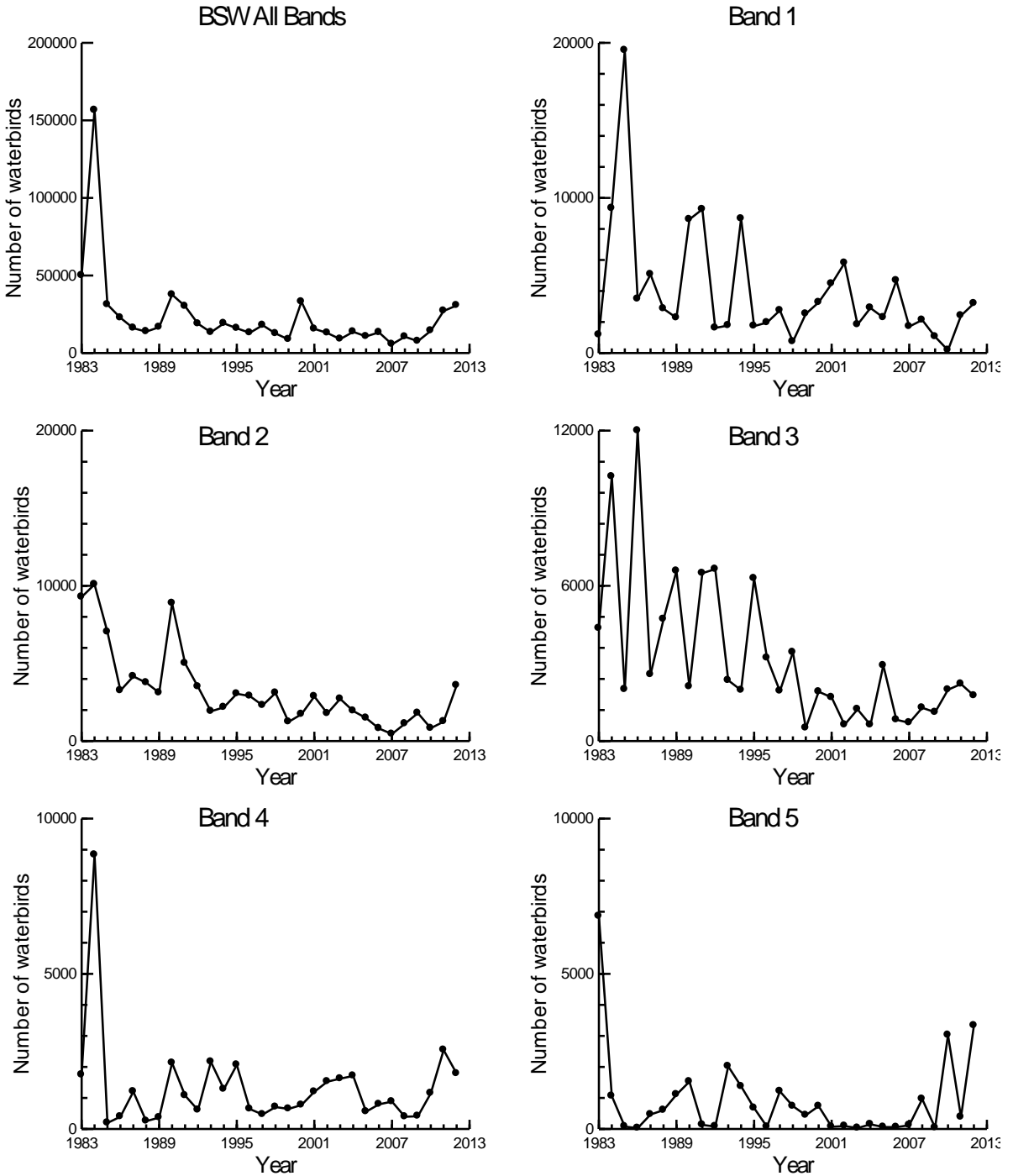
Scales vary on graphs

Figure 10. Pacific black duck 6-10



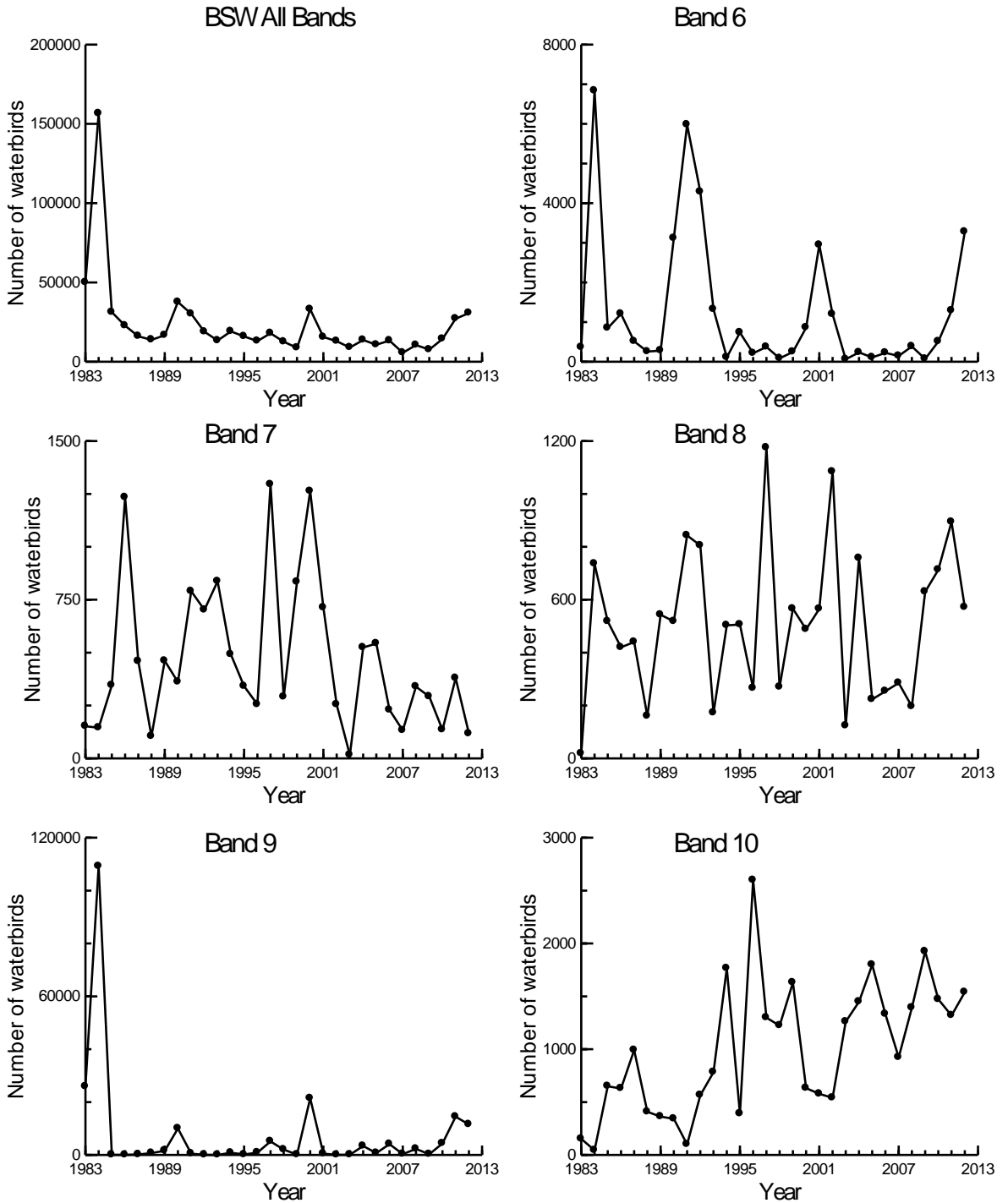
Scales vary on graphs

Figure 11. Black swan 1-5



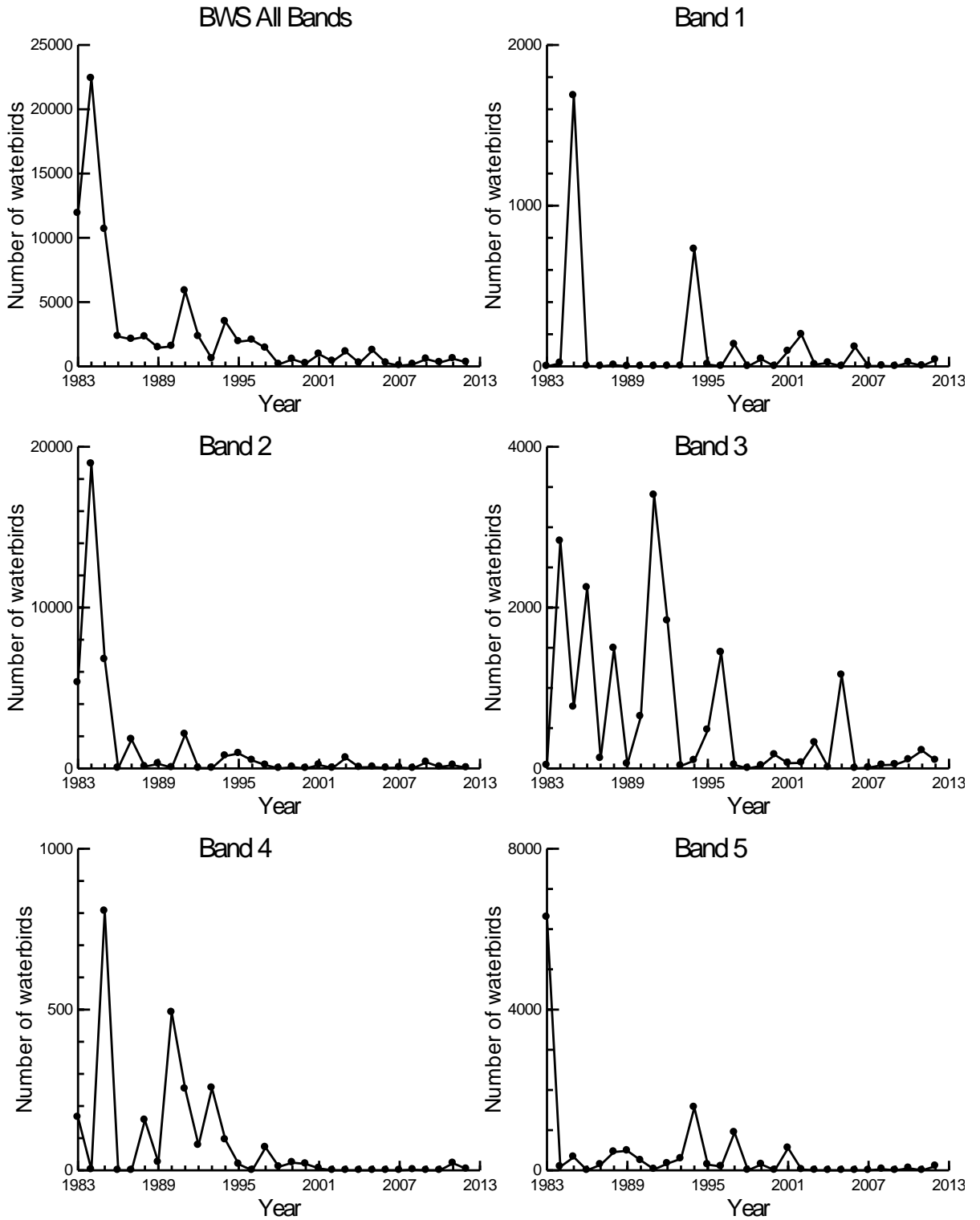
Scales vary on graphs

Figure 12. Black swan 6-10



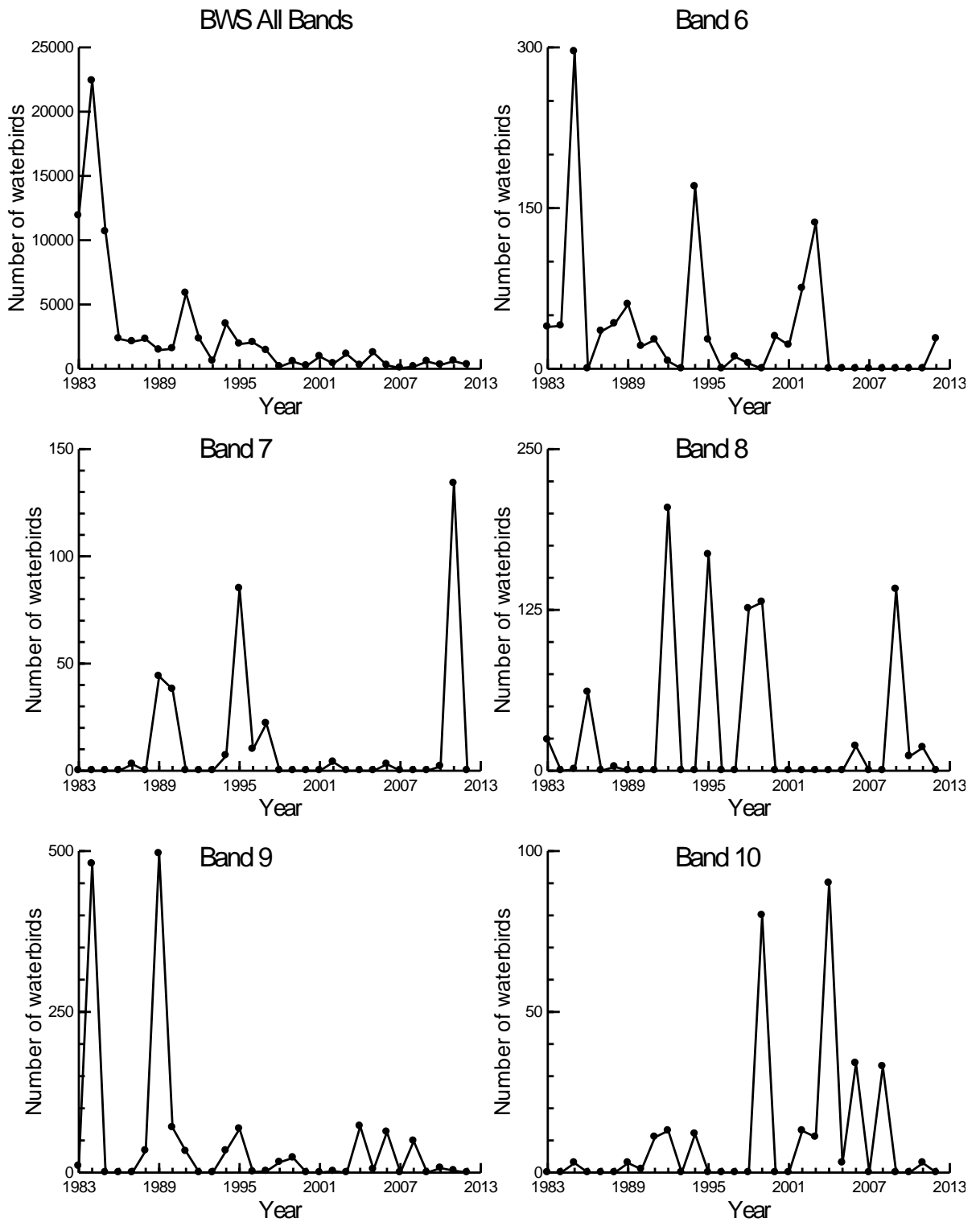
Scales vary on graphs

Figure 13. Australasian shoveler 1-5



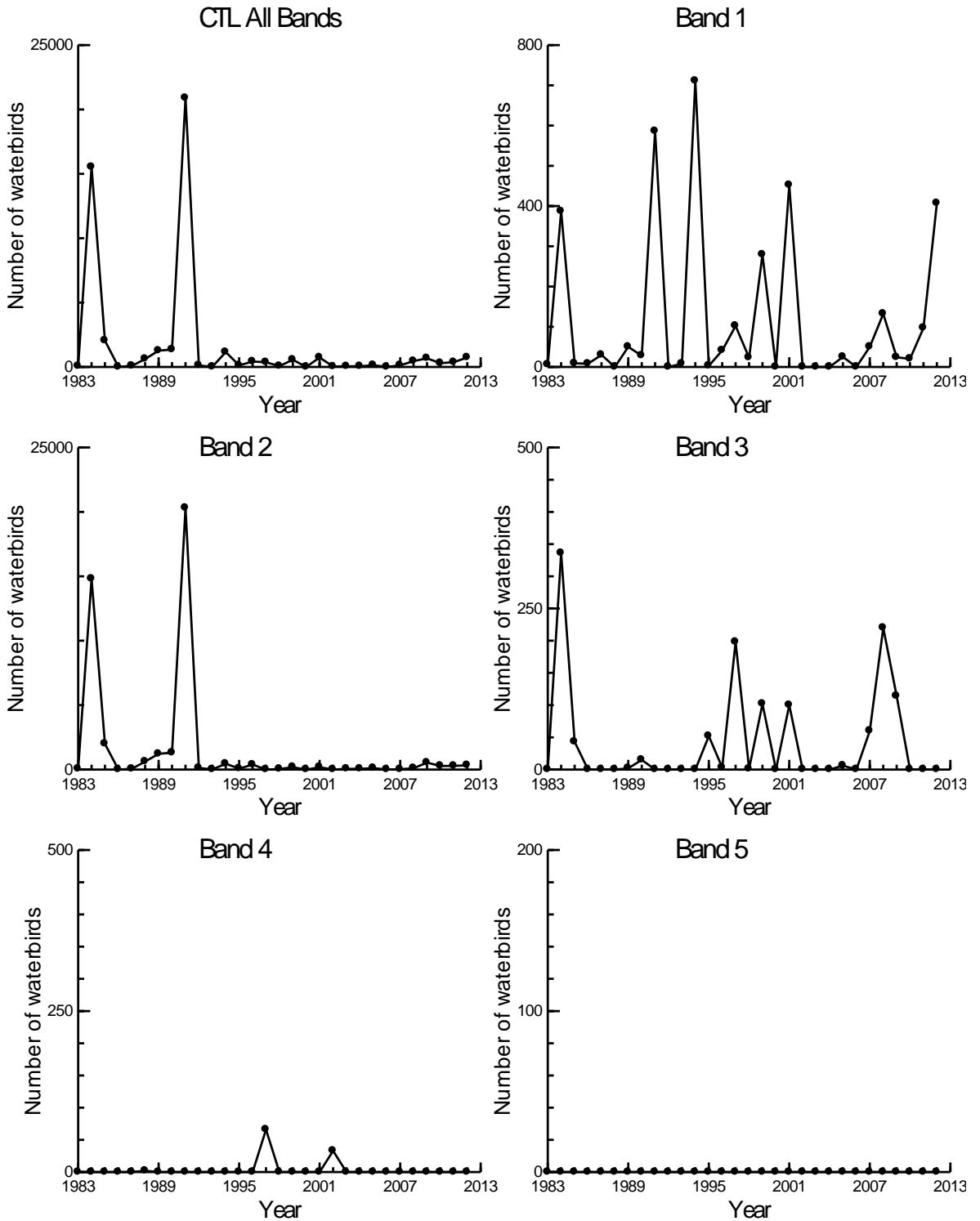
Scales vary on graphs

Figure 14. Australasian shoveler 6-10



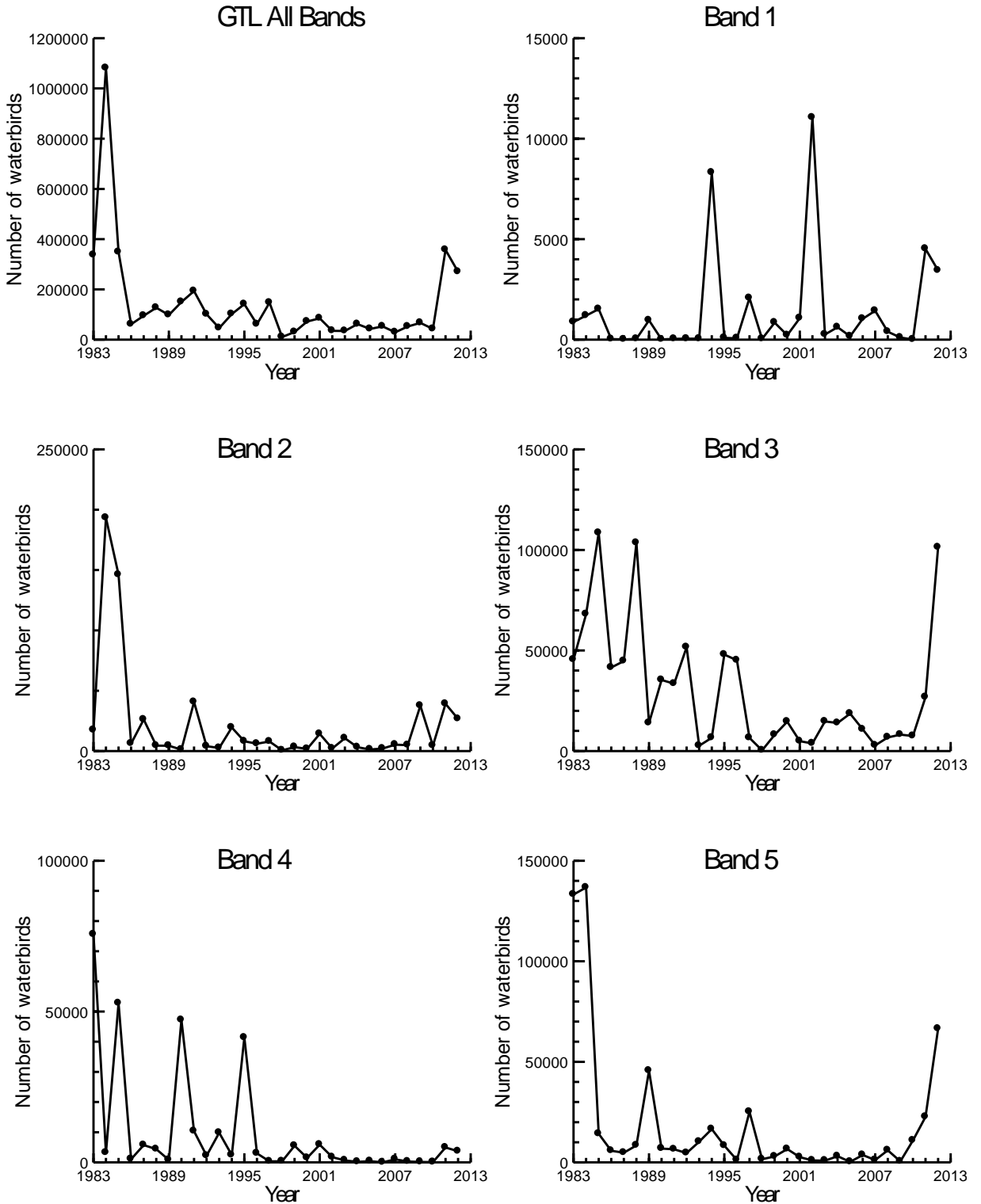
Scales vary on graphs

Figure 15. Chestnut teal 1-5



Scales vary on graphs

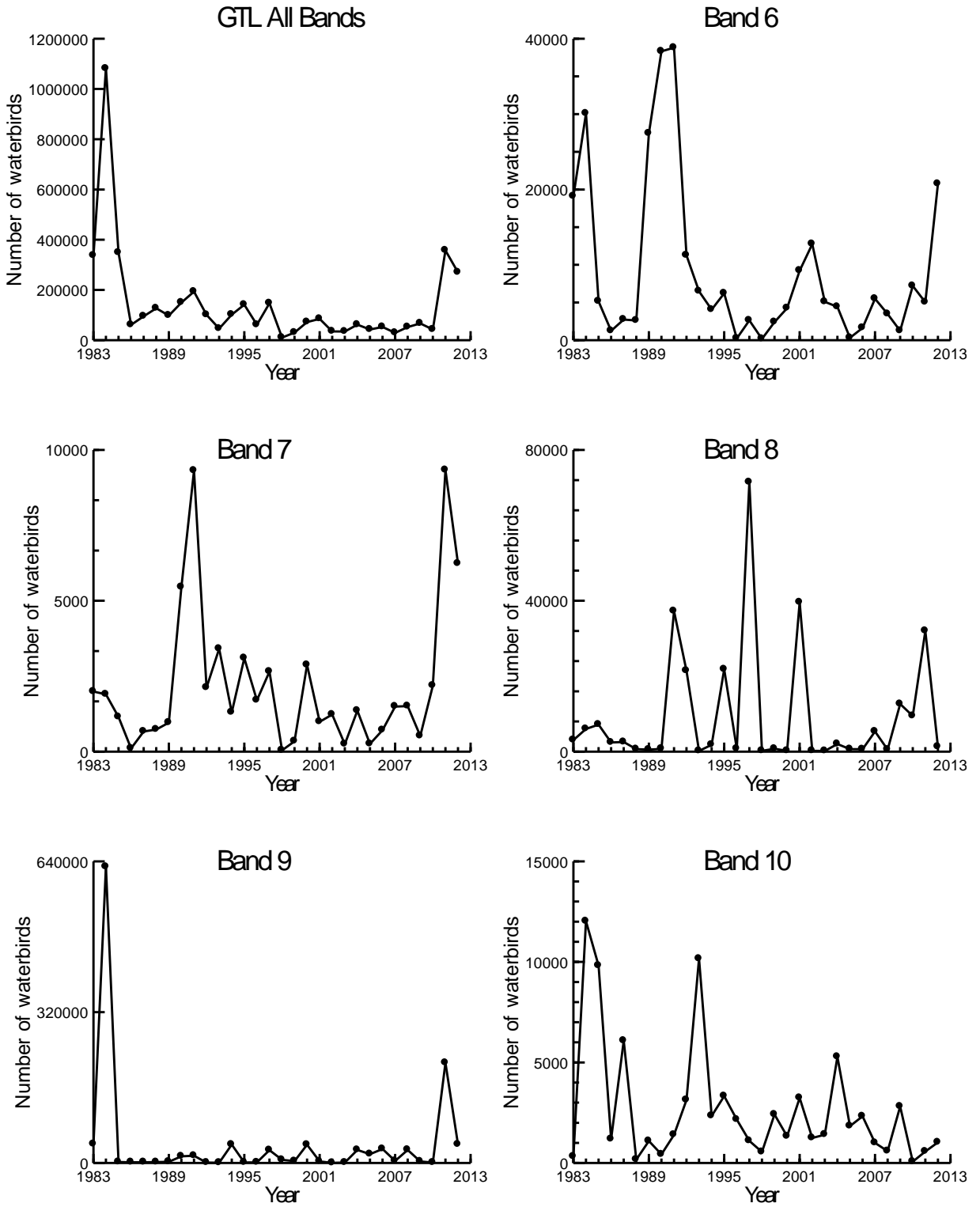
Figure 16. Grey teal 1-5



Scales vary on graphs

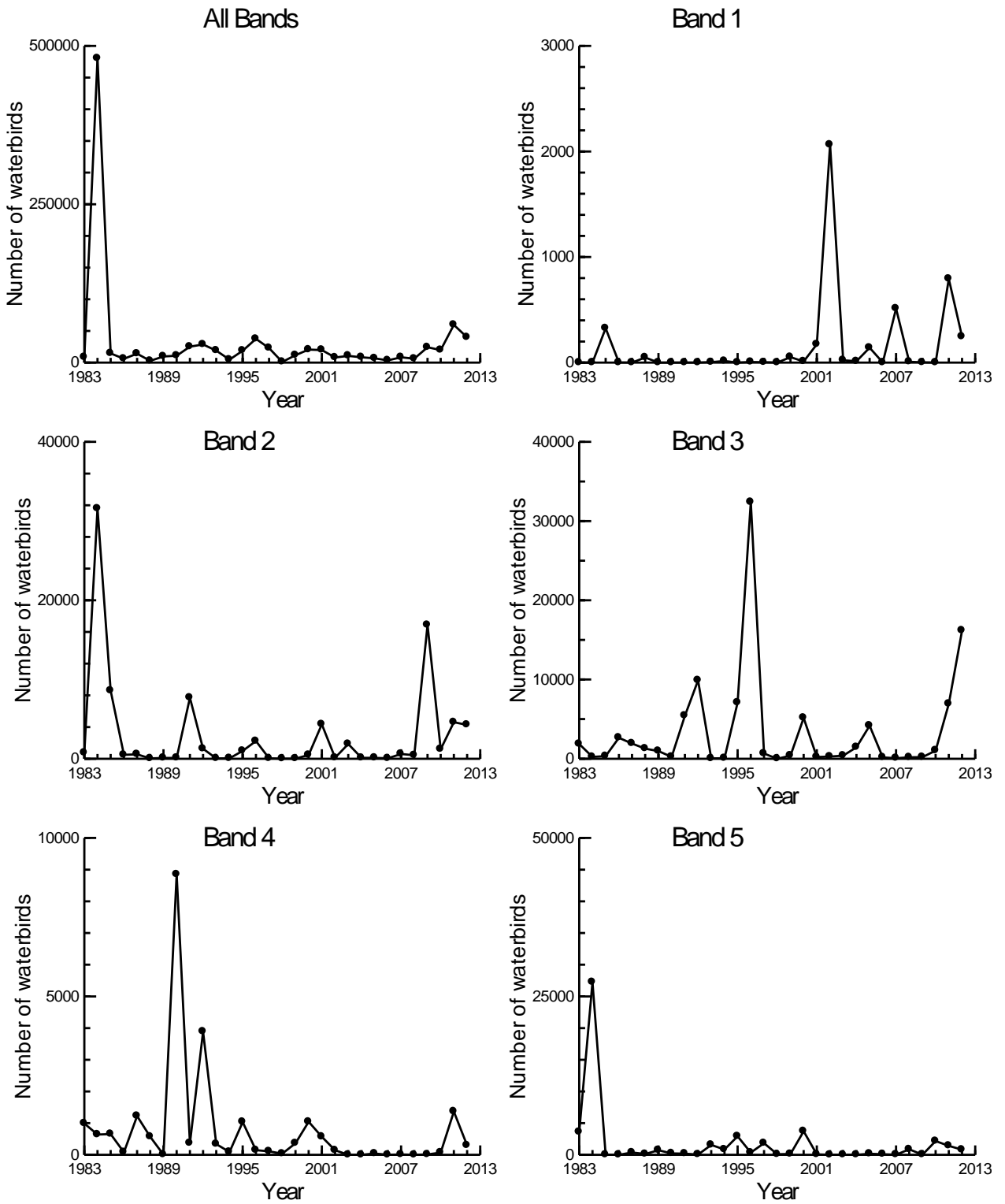


Figure 17. Grey teal 6-10



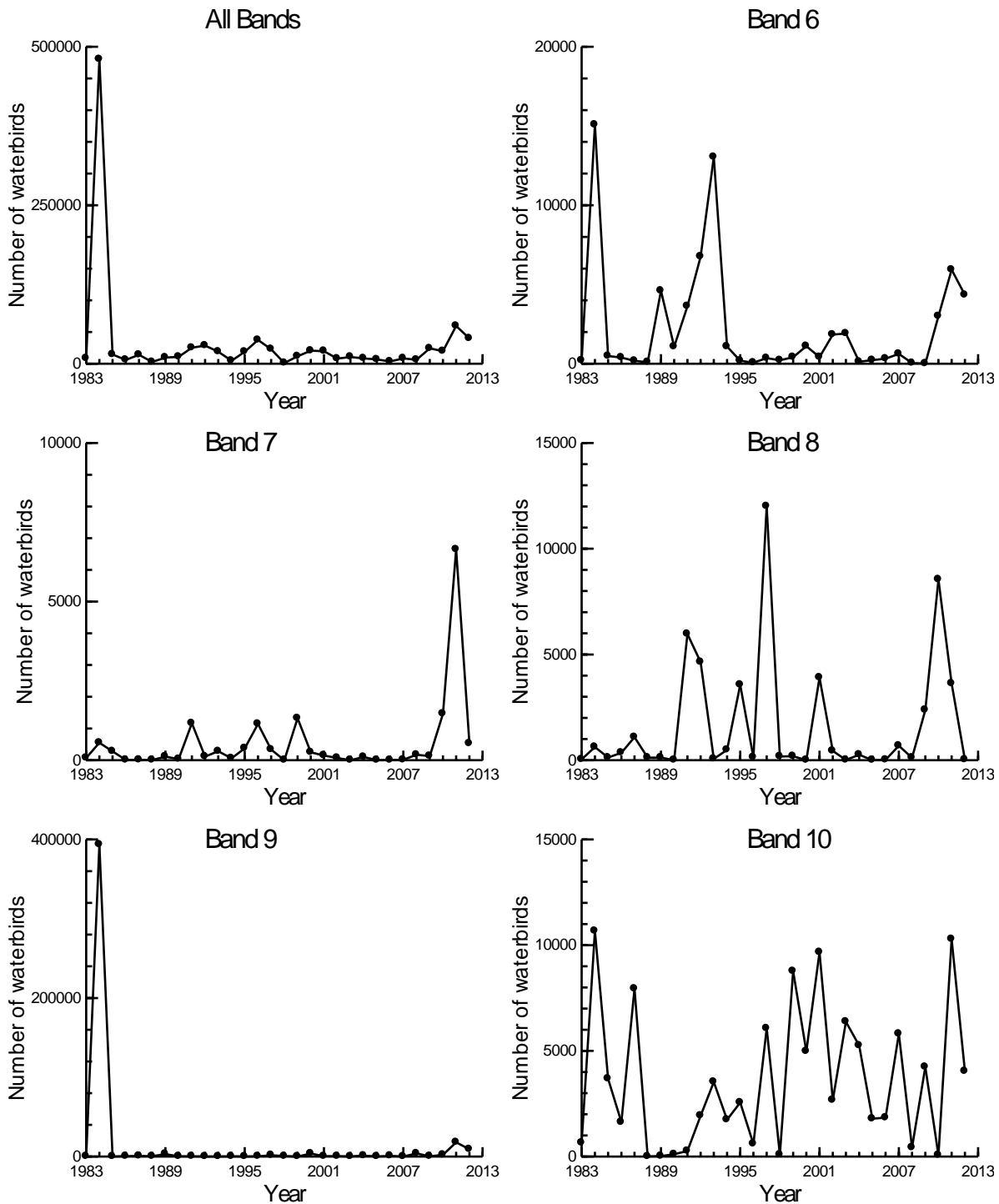
Scales vary on graphs

Figure 18. Hardhead 1-5



Scales vary on graphs

# Figure 19. Hardhead 6-10



Scales vary on graphs

Figure 20. Freckled duck 1-5

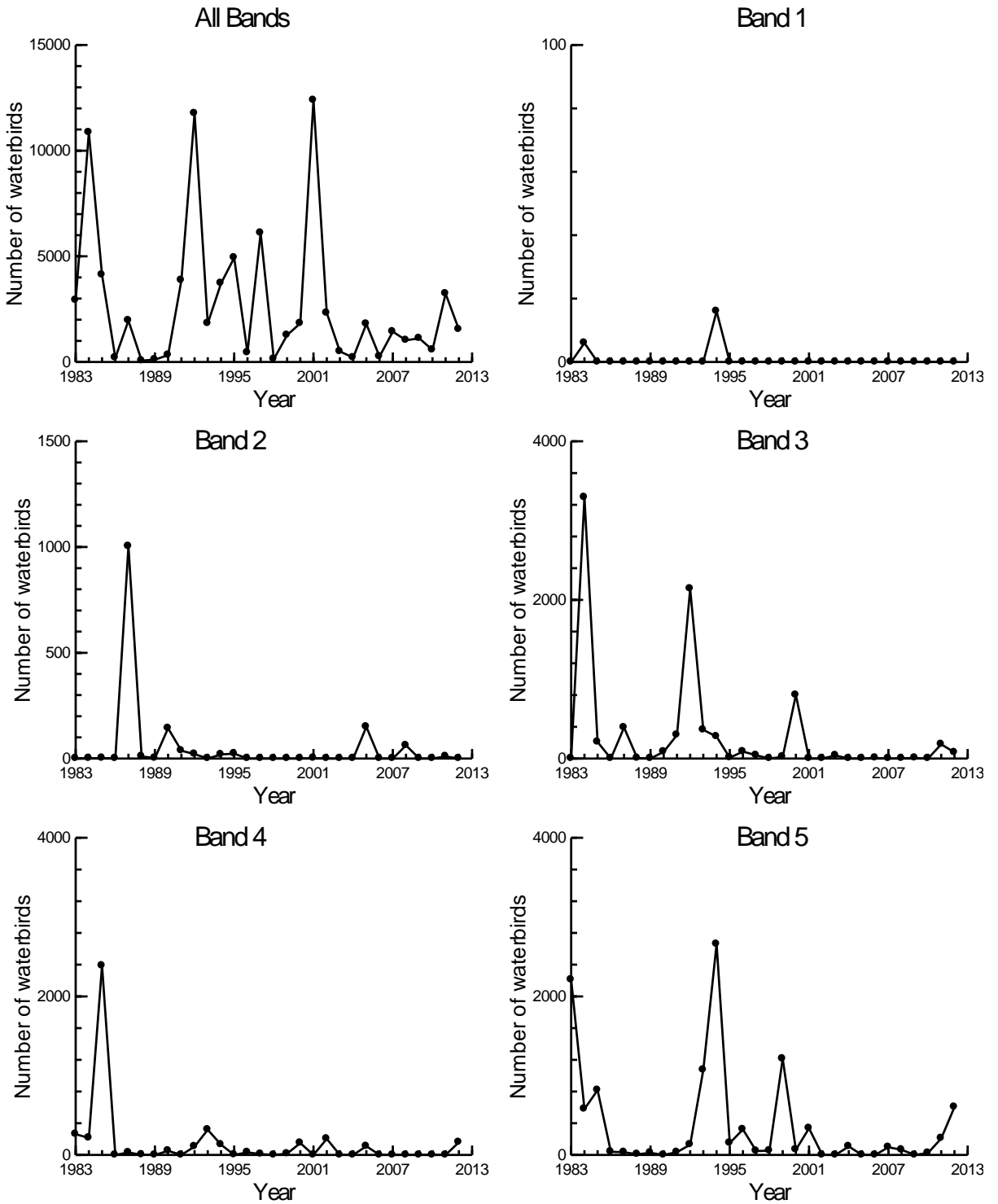
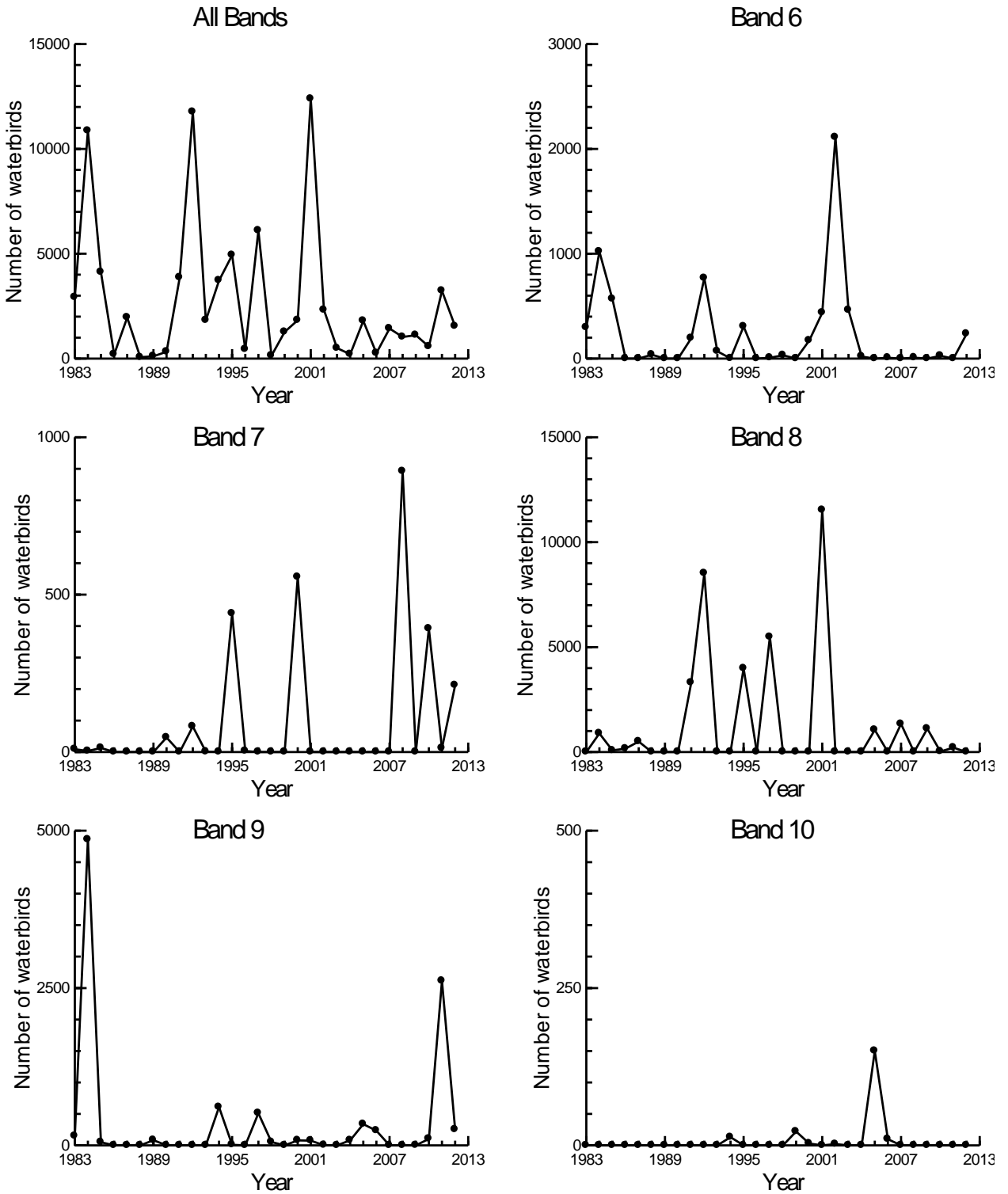
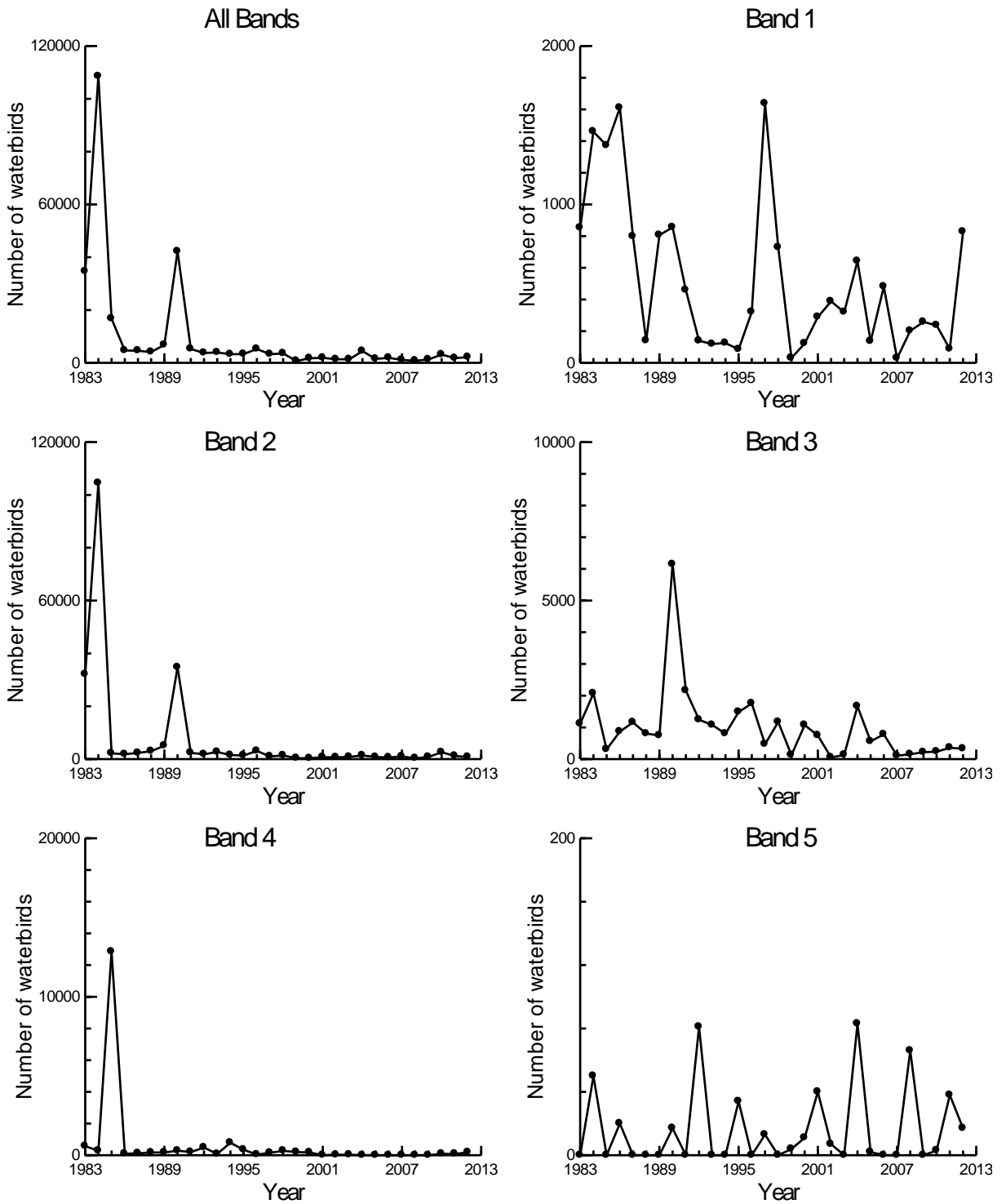


Figure 21. Freckled duck 6-10



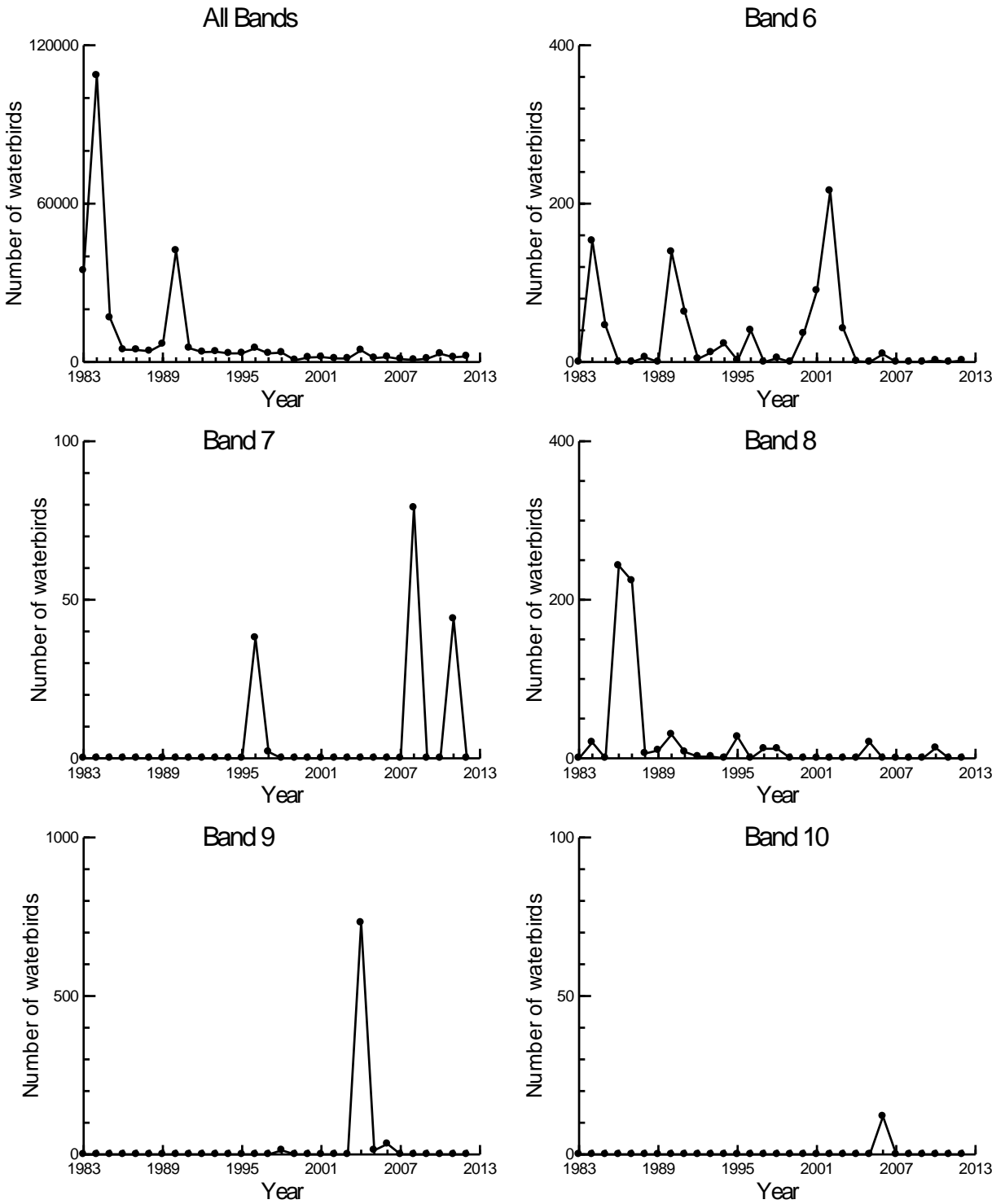
Scales vary on graphs

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

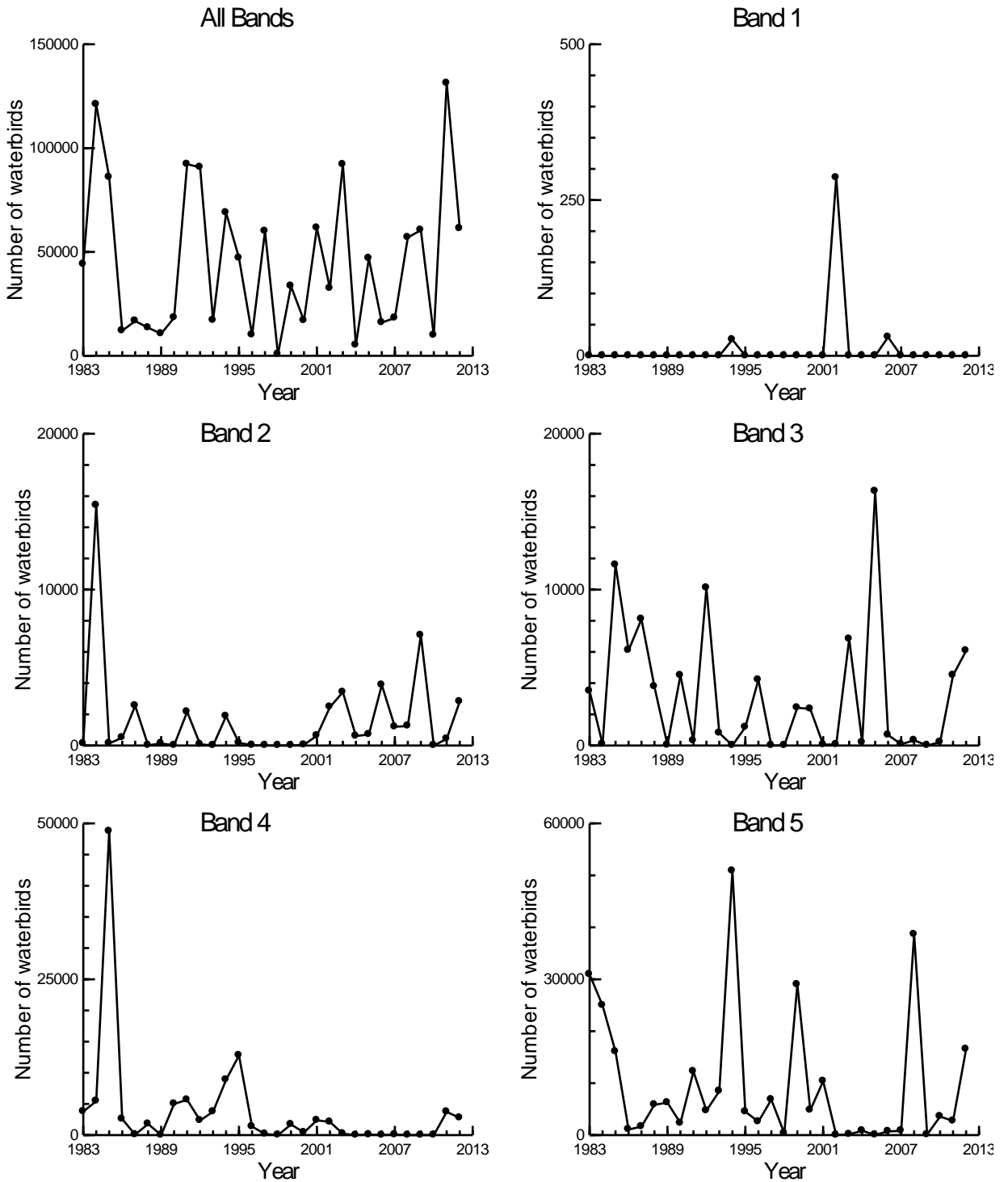




Figure 25. Pink-eared duck 6-10

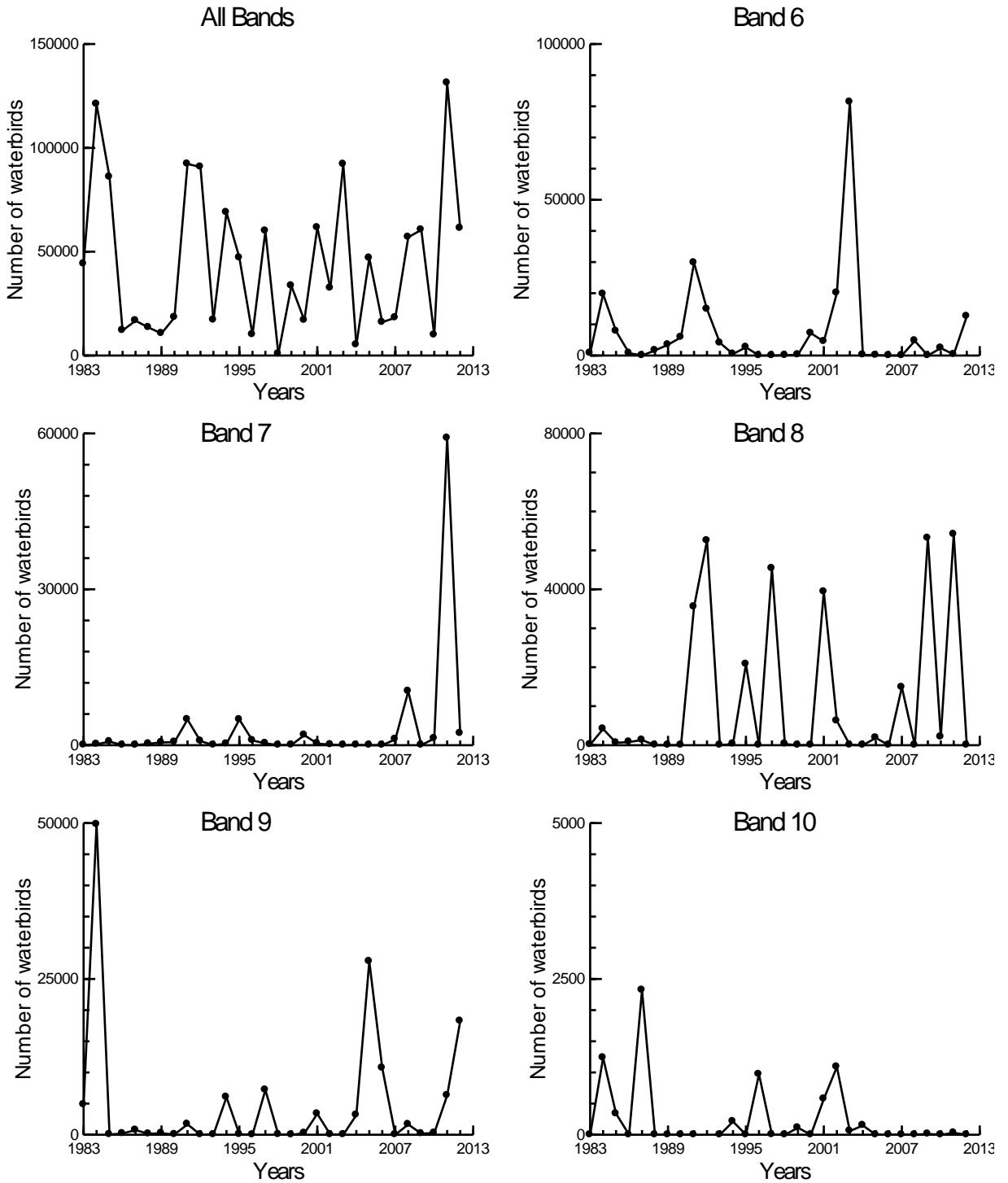
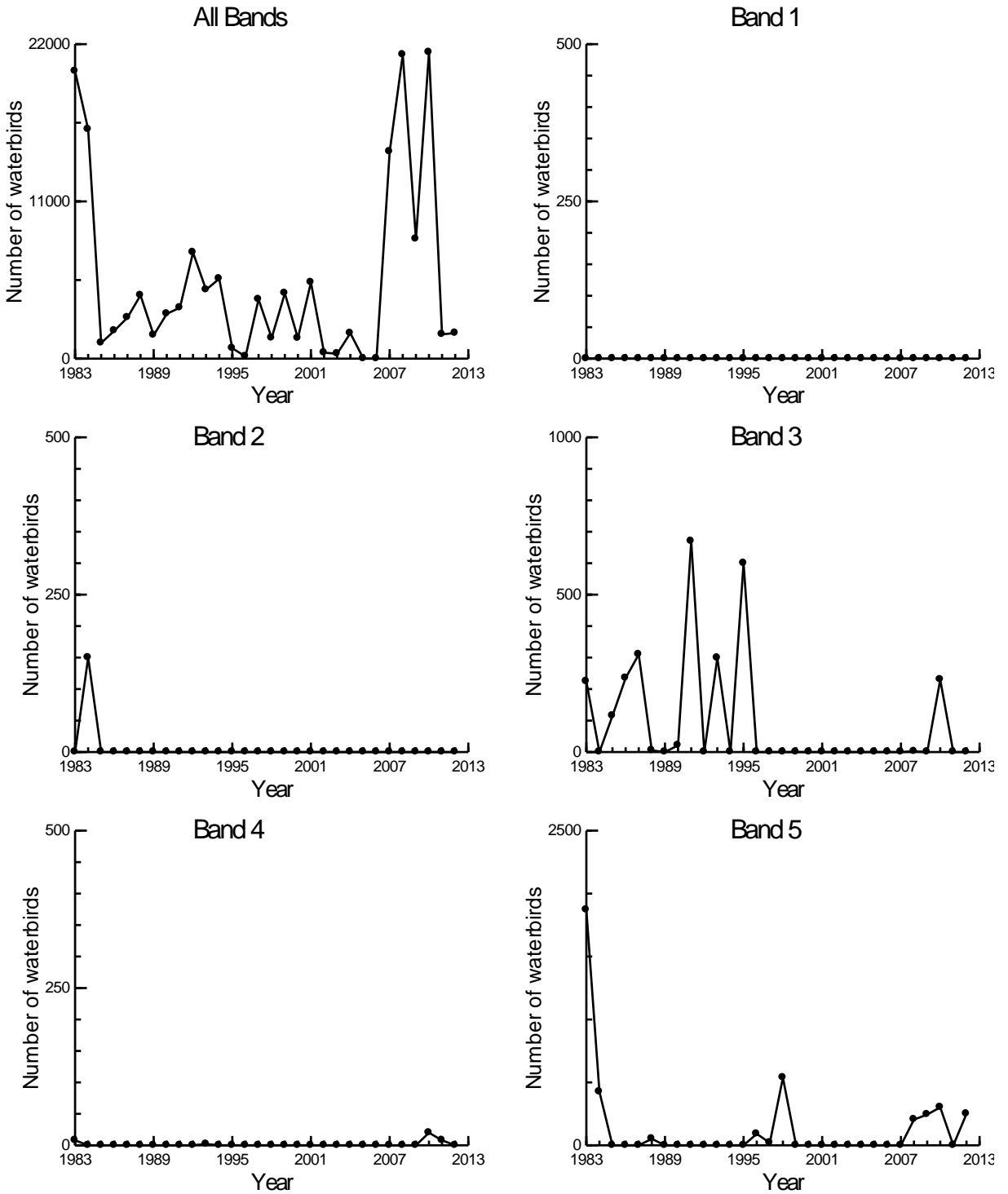
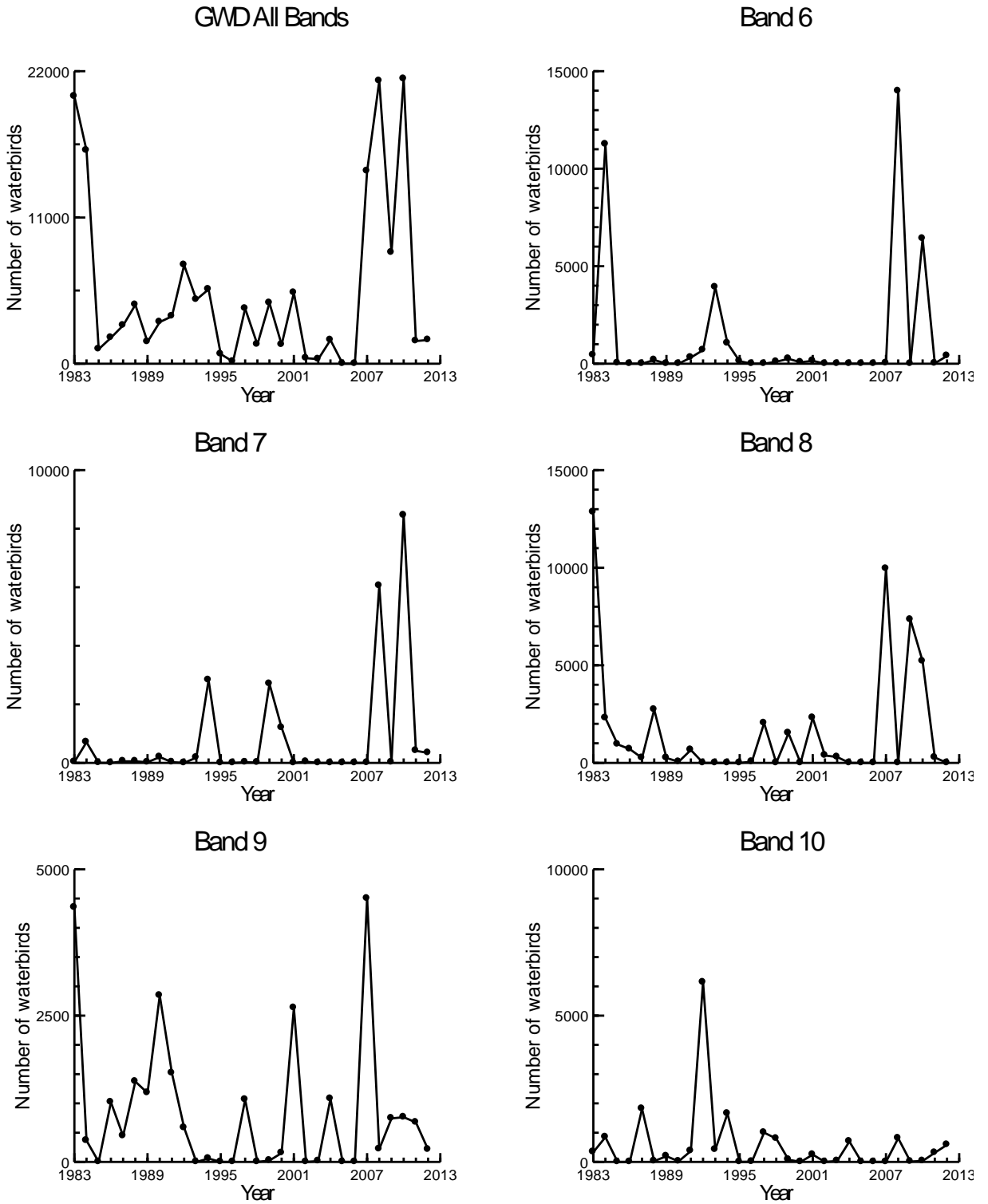


Figure 26. Plumed whistling-duck 1-5



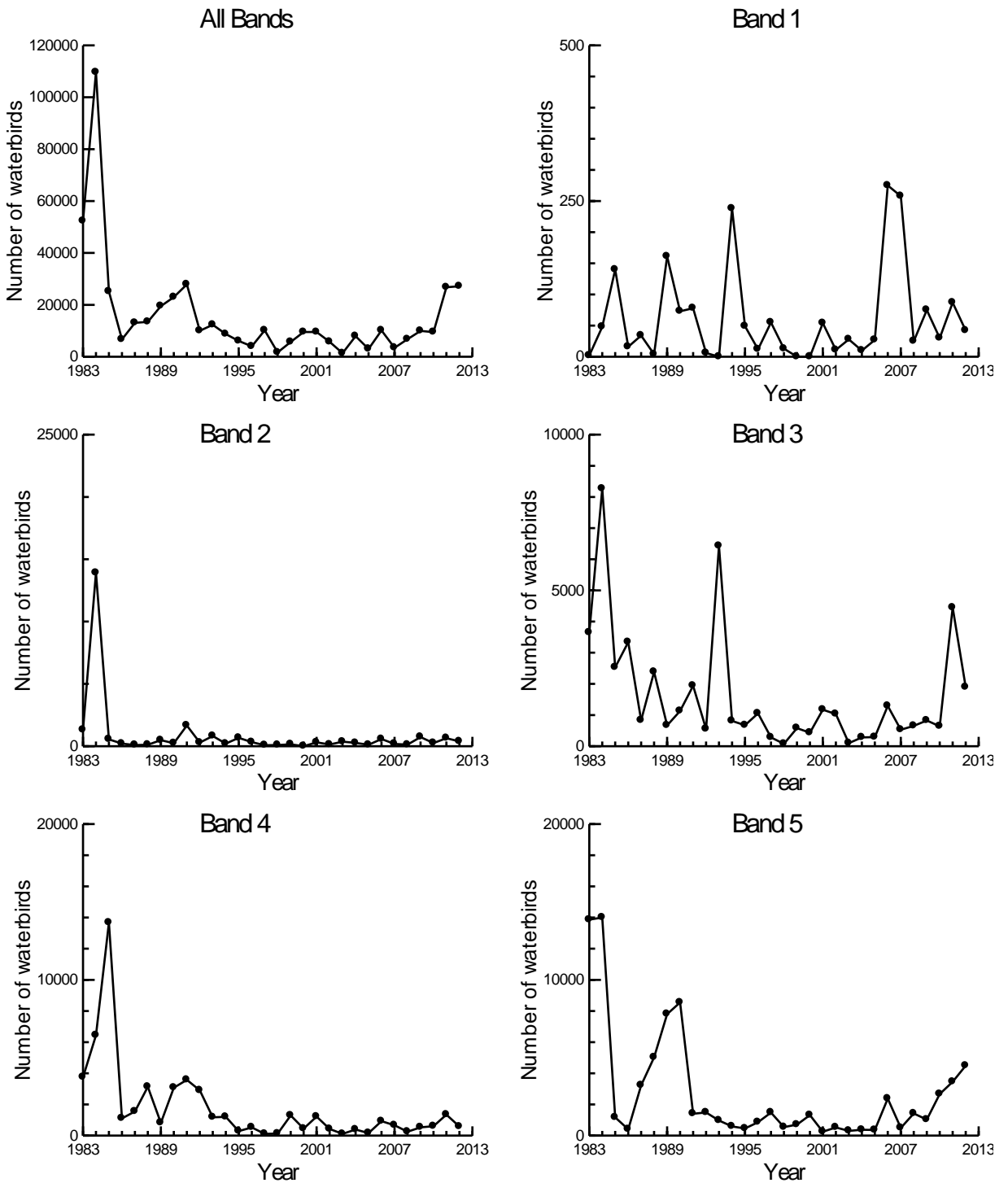
Scales vary on graphs

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

