

## **Aerial Survey of Wetland Birds in Eastern Australia - October 2011 Annual Summary Report**

**J.L. Porter and R.T. Kingsford**  
**Australian Wetlands and Rivers Centre,**  
**School of Biological, Earth and Environmental Sciences**  
**University of New South Wales**

### **Results summary**

1. There was significant flooding throughout eastern Australia survey area. This included widespread flooding in the Murray-Darling Basin and Lake Eyre Basins. Many large wetland systems had widespread flooding. Most key wetlands were either fully flooded or partially flooded (Fig. 1). Some additional flooding has continued to occur since completion of aerial surveys across some river systems, increasing wetland habitat available in inland areas, particularly the northern part of the Murray-Darling Basin.
2. Wetland habitat was again extensive in the Cooper Creek Catchment as well as the Diamantina and Georgina river systems. Lake Eyre was drying and supported few waterbirds. Wetlands on the lower Cooper Creek held water for the second consecutive year, with extensive flooding.
3. Throughout the Murray-Darling Basin, many of the large 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 fell from 2010 levels but remained above the long term average (Fig. 2).
5. There was an increase in total numbers of birds estimated, the highest overall total since 1984 (Fig. 3). Waterbirds were beginning to concentrate more in 2011 than 2010 on the major wetland areas.

**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.**

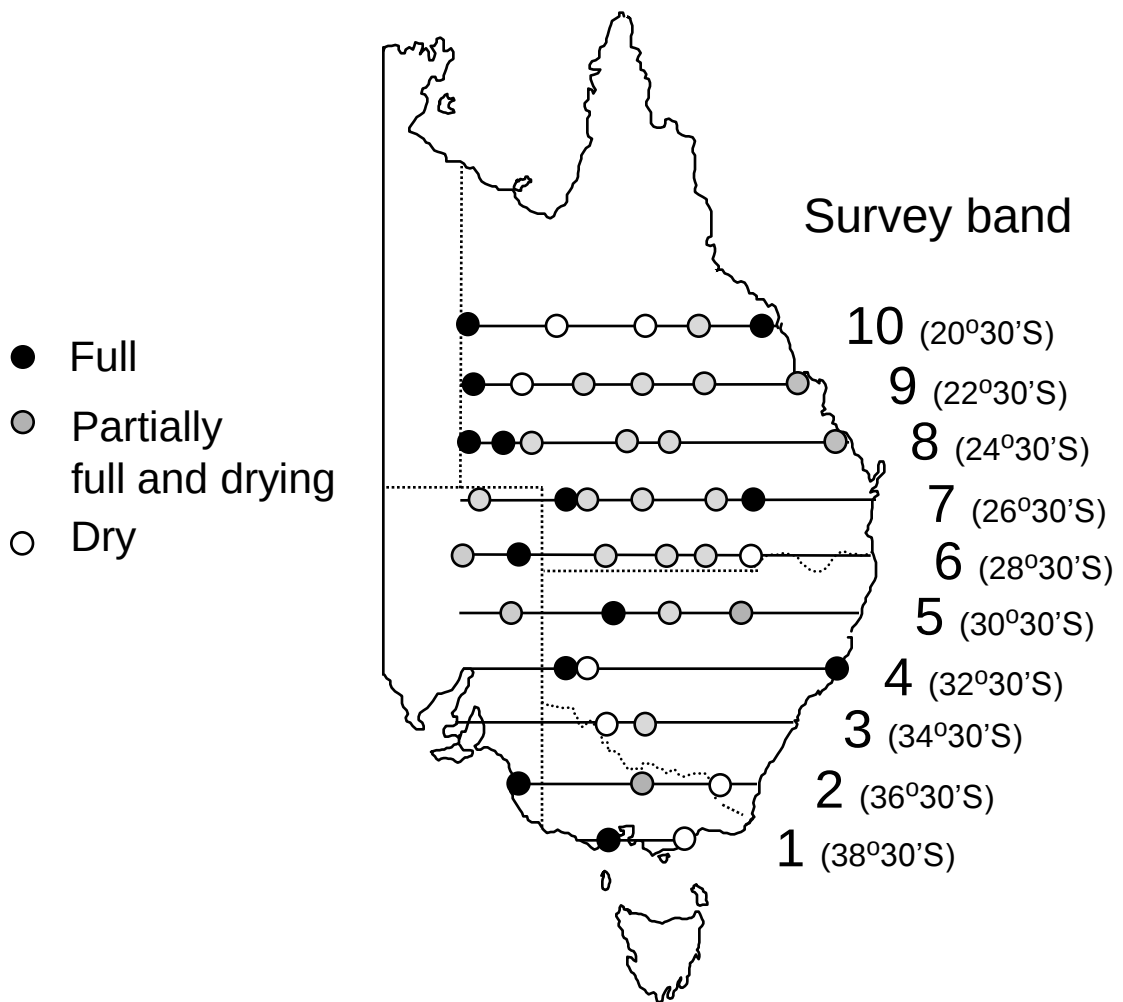
## **Result summary continued**

7. The breeding index (all species combined) was high but declined considerably compared to 2010. Most of the birds recorded breeding (98%) were non-game species (Straw-necked and Glossy ibis). Breeding species richness was also high, well above the long term average.

## **Acknowledgements**

We thank Terry Korn and Paul Wainright for acting as expert observers during the survey, Richard Byrne of NSW National Parks and Wildlife, NSW Office of Environment and Heritage and Harley McKillop of Pays Air Services for piloting aircraft. We also thank Camila Ridoutt and Louise Symes for their help with data entry and validation.

Figure 1. Wetland map 2011



### 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

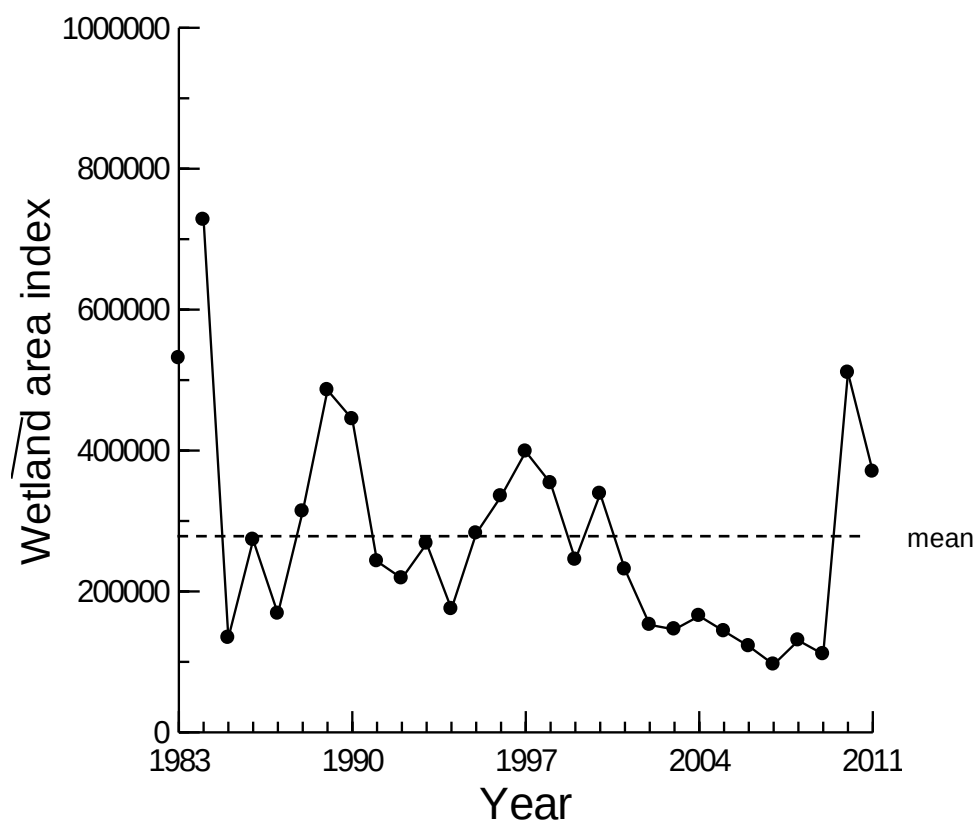


Figure 3. Total waterbirds

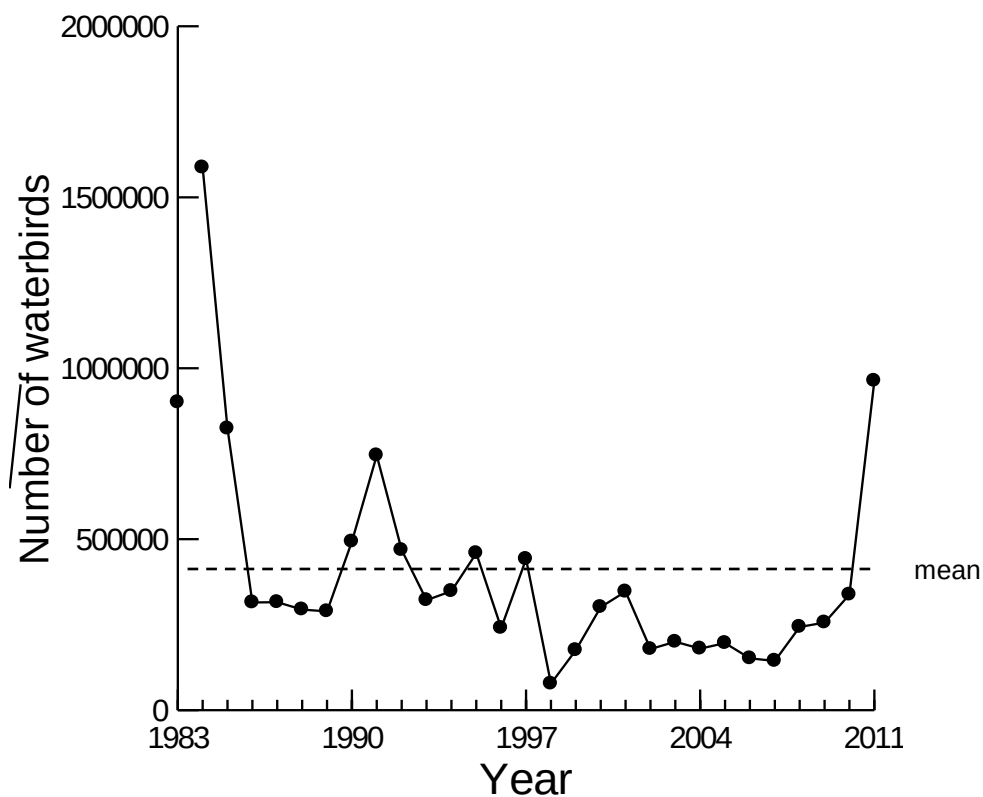
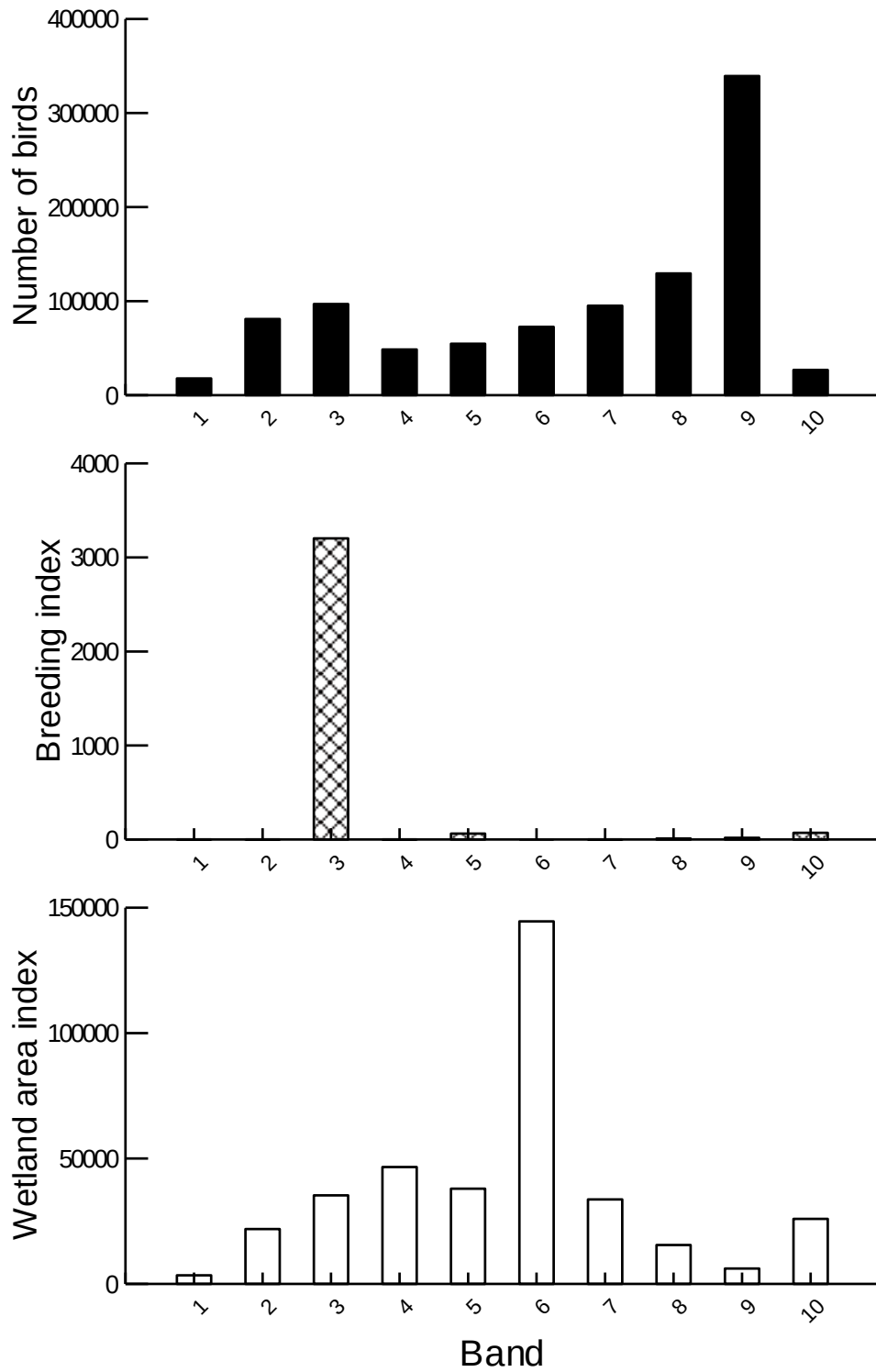


Figure 4. Band totals 2011



Scales vary on graph axes

Figure 5. Breeding index (all species)

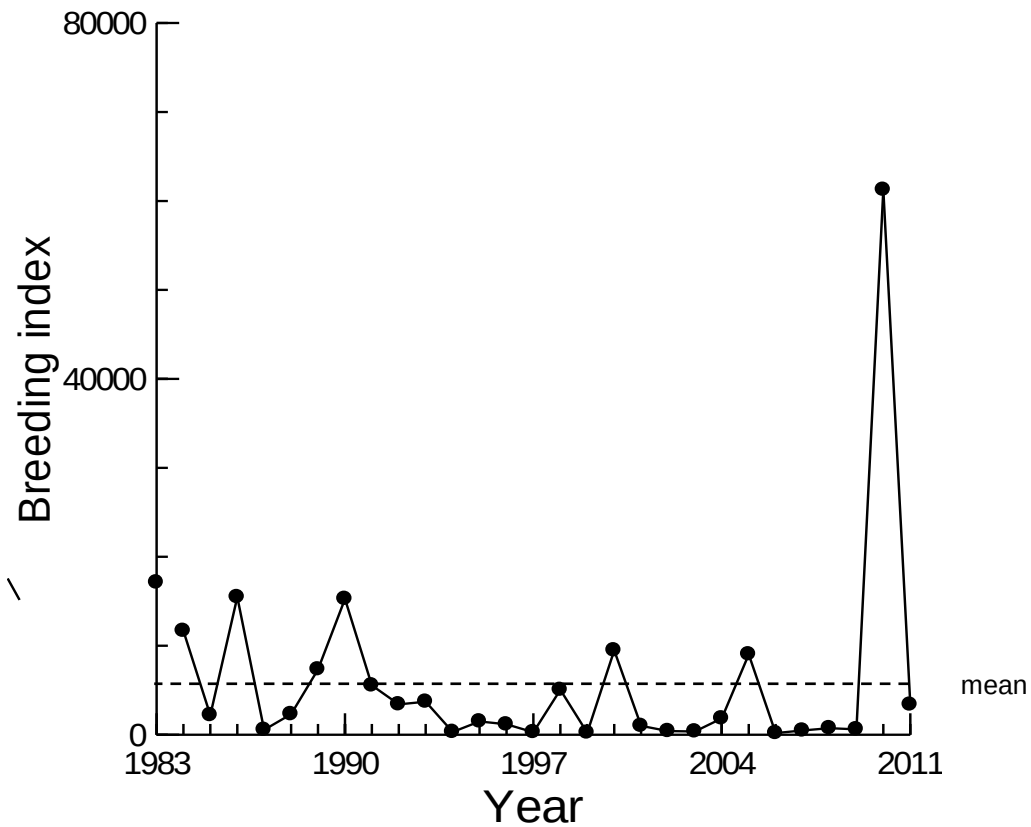
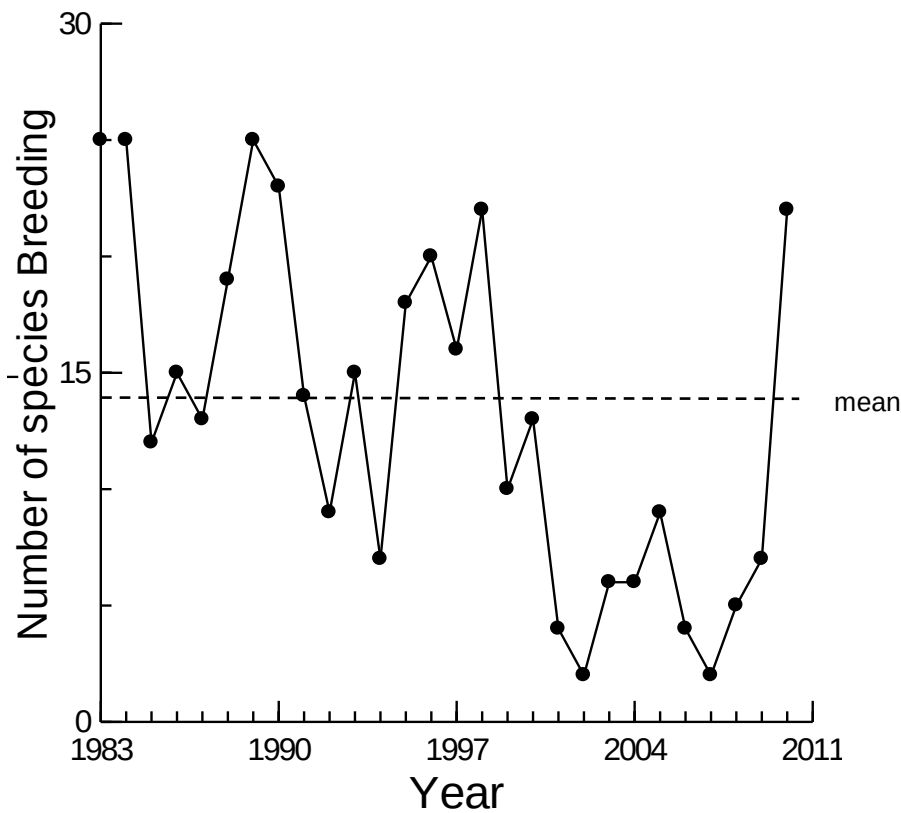
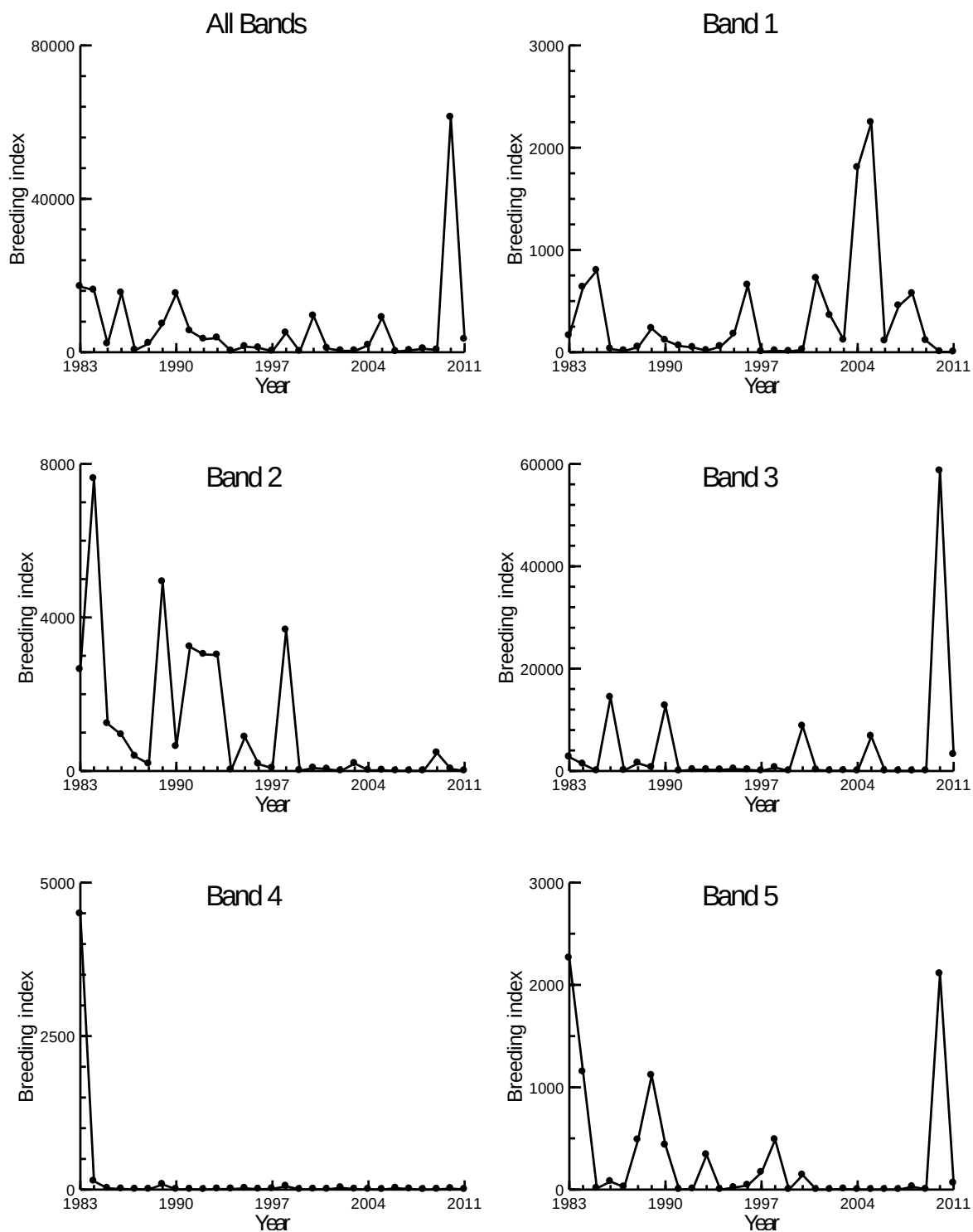


Figure 6. Number of species breeding



Scales vary on graph axes

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



Scales vary on graphs

Figure 8. Breeding index 6-10

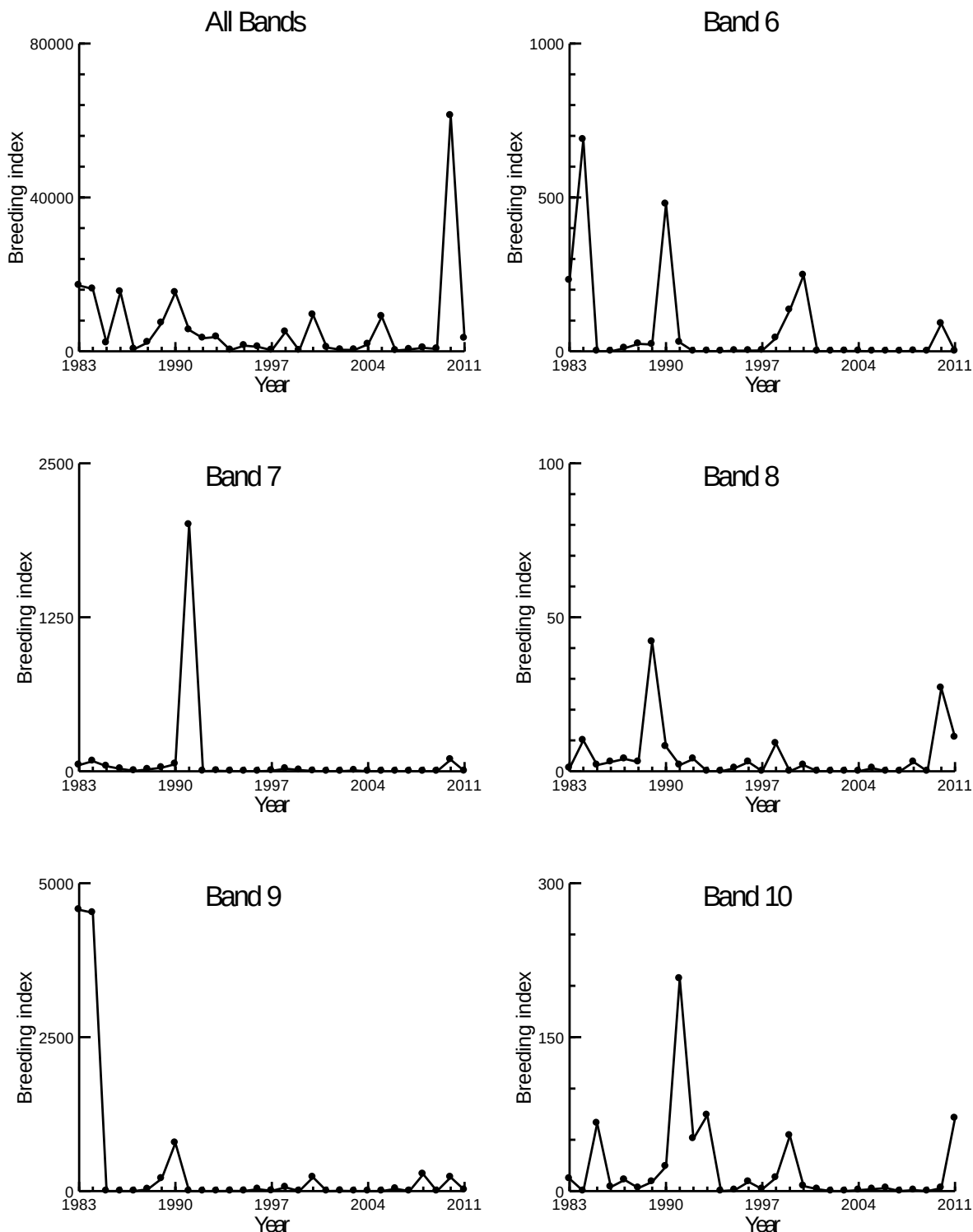




Figure 9. Pacific black duck 1-5

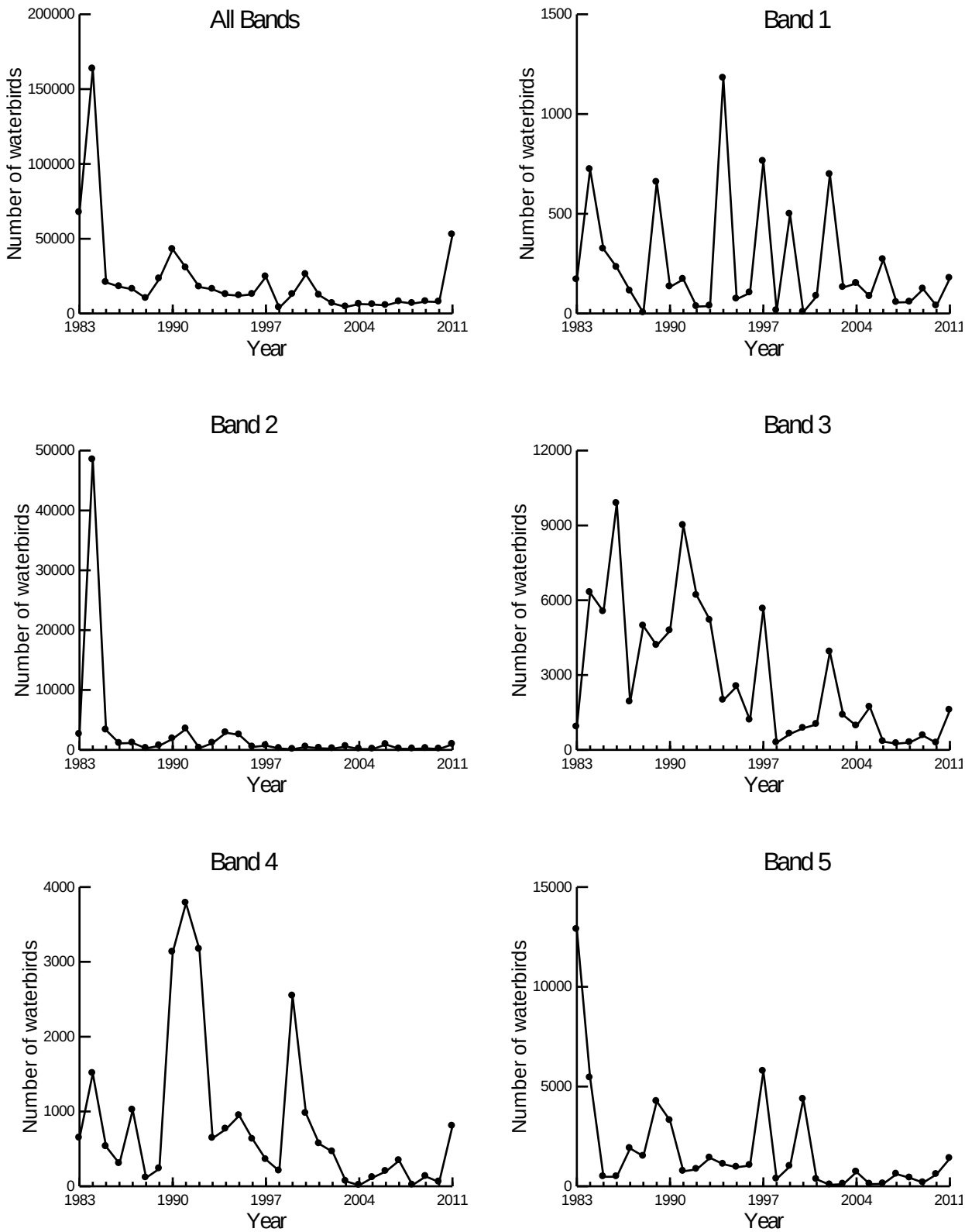
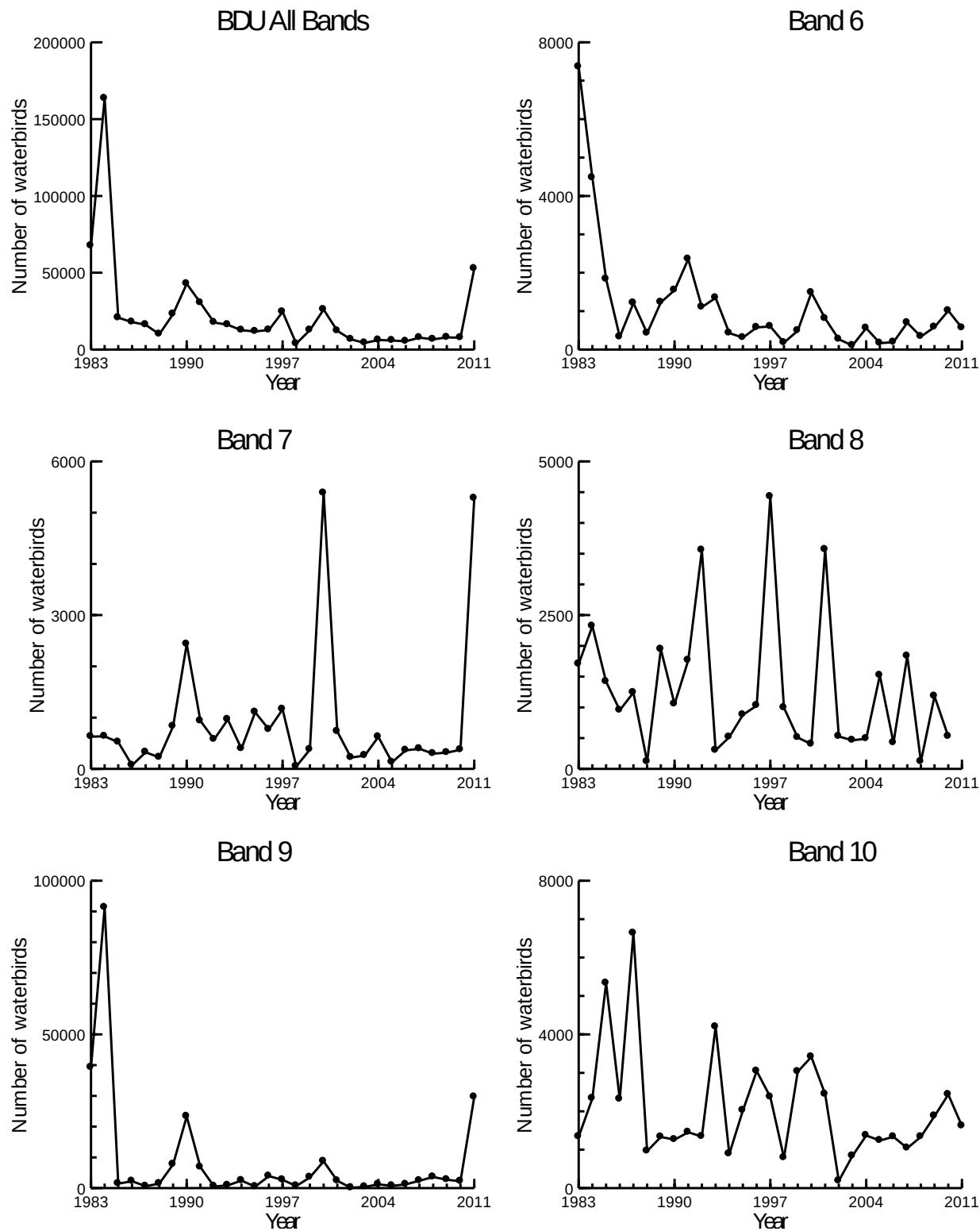
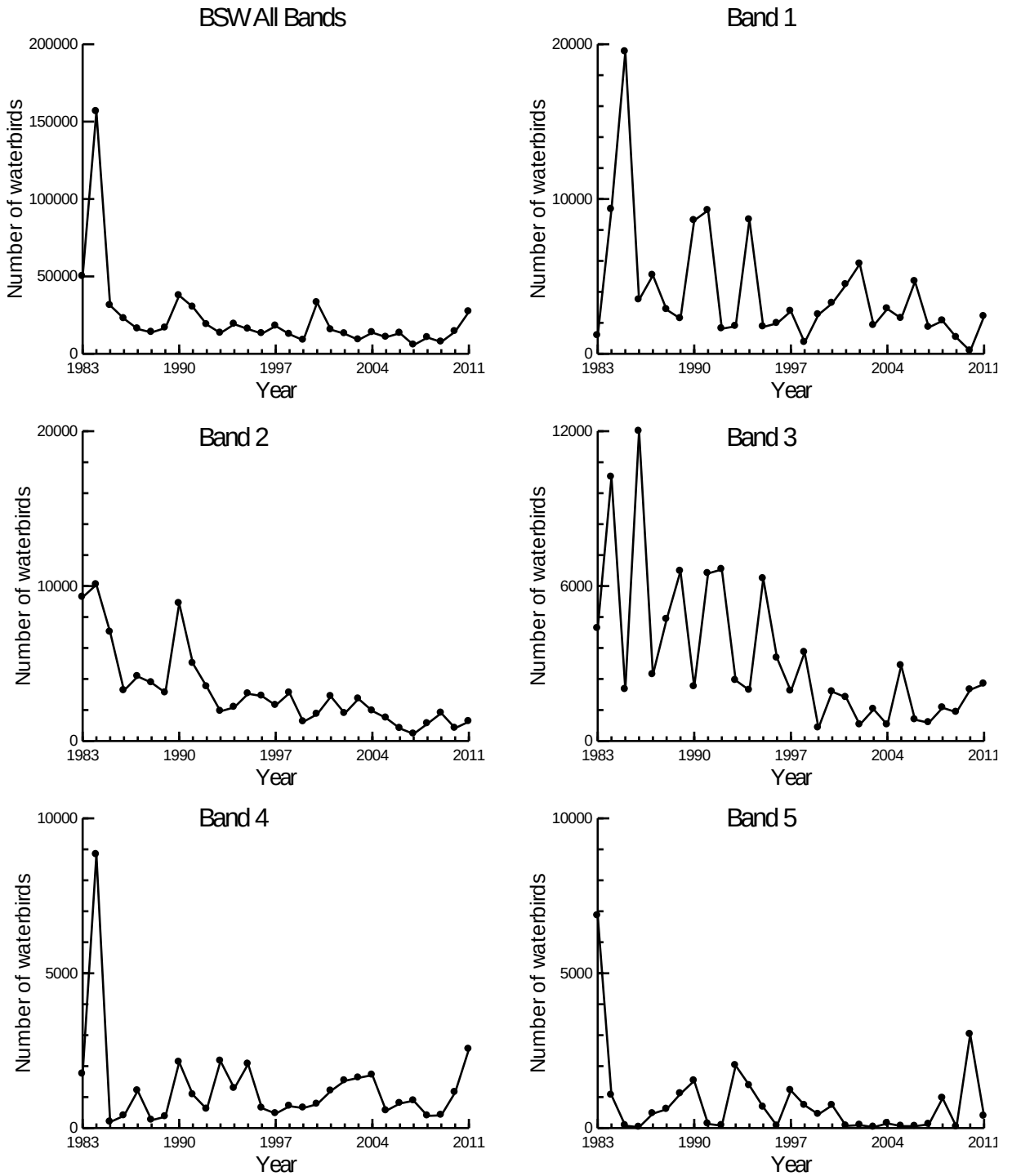


Figure 10. Pacific black duck 6-10



# Figure 11. Black swan 1-5



Scales vary on graphs

Figure 12. Black swan 6-10

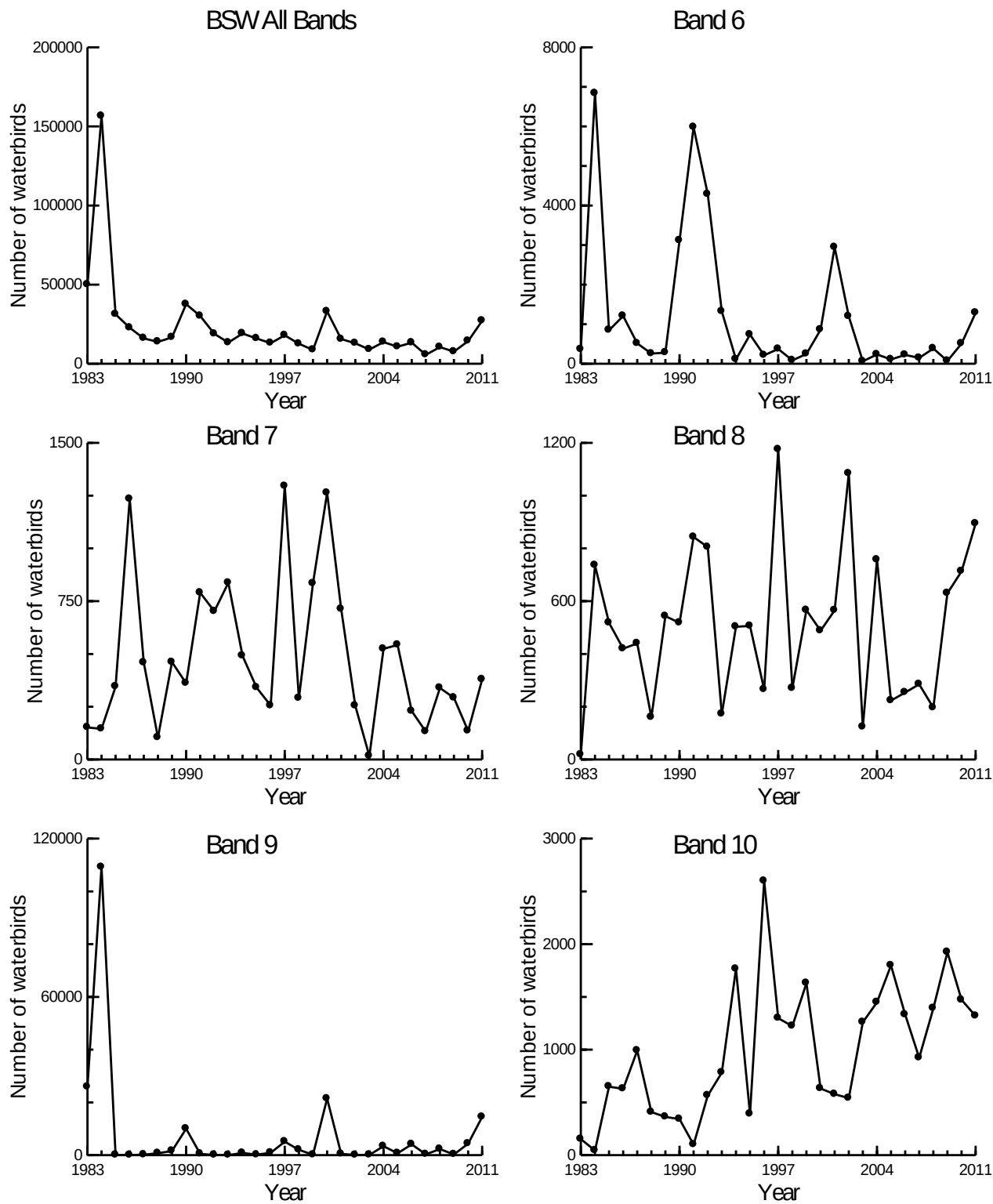


Figure 13. Australasian shoveler 1-5

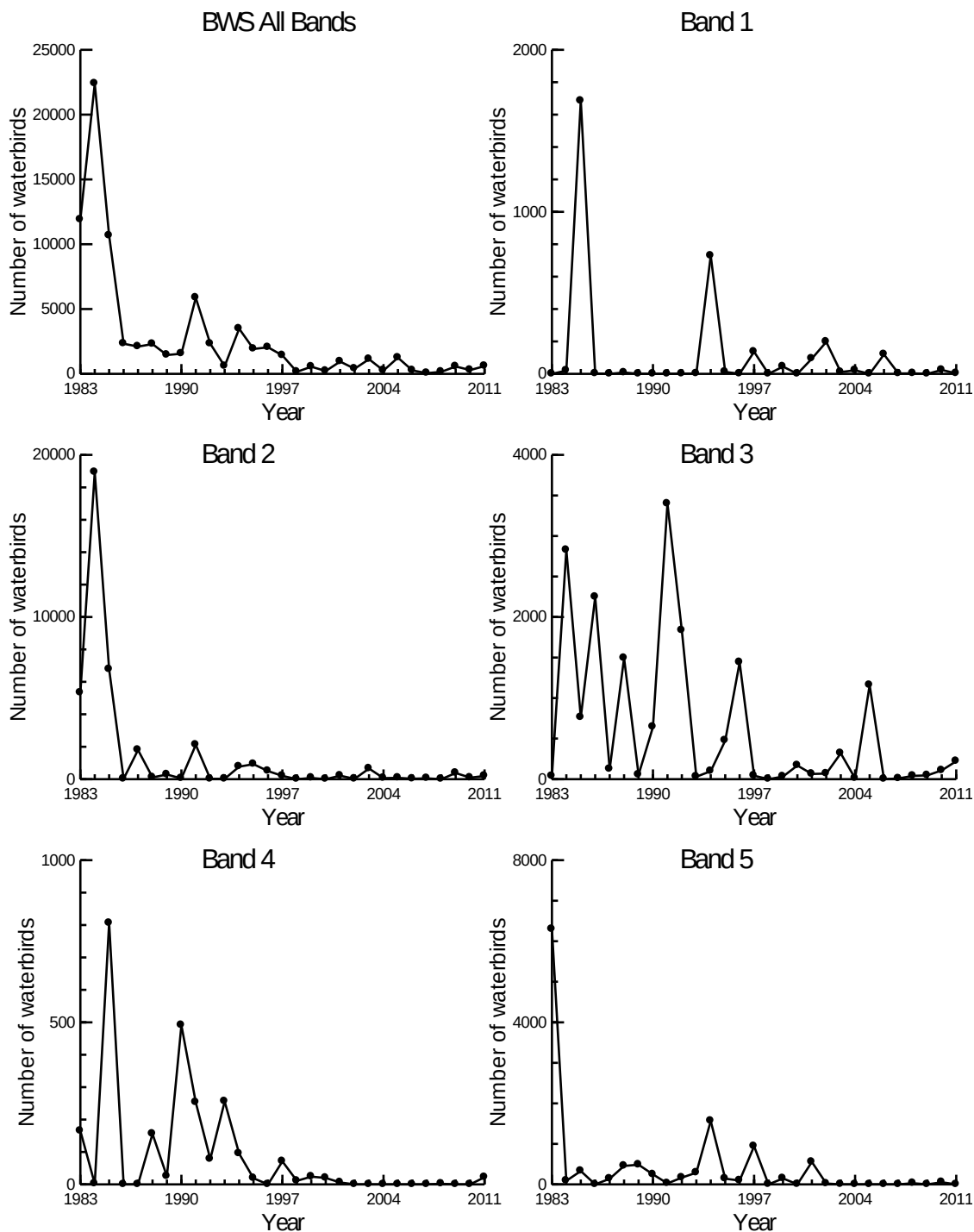


Figure 14. Australasian shoveler 6-10

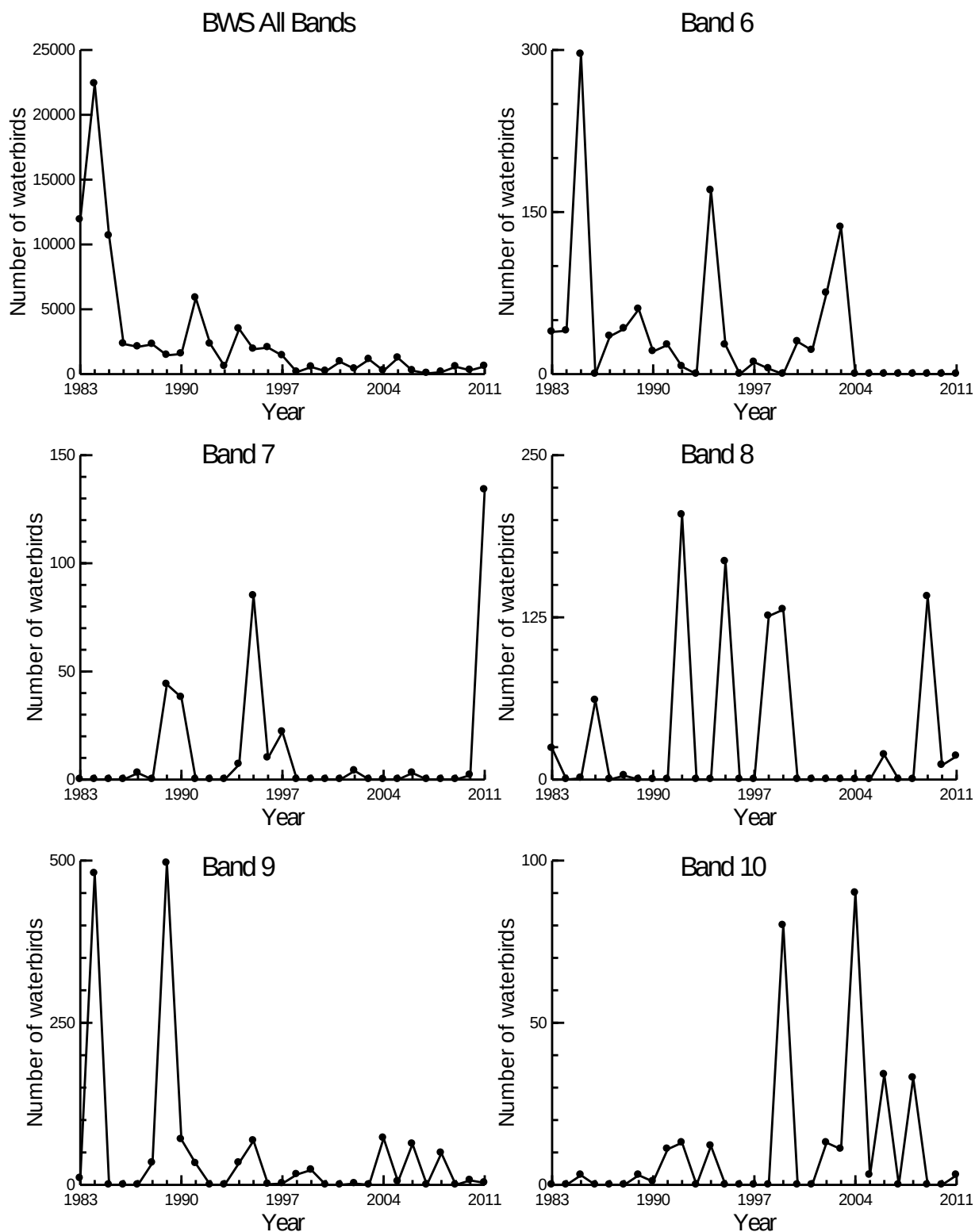


Figure 15. Chestnut teal 1-5

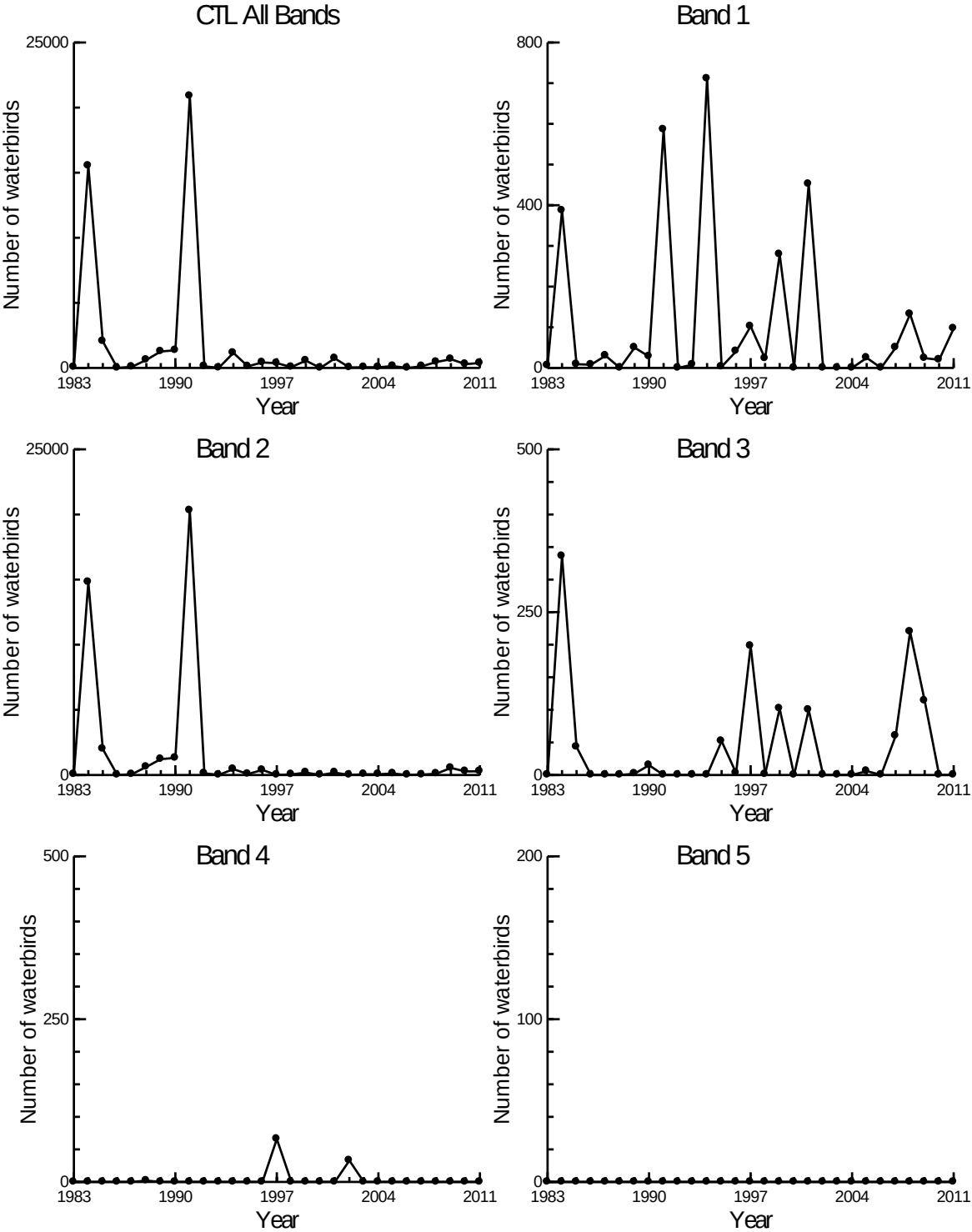


Figure 16. Grey teal 1-5

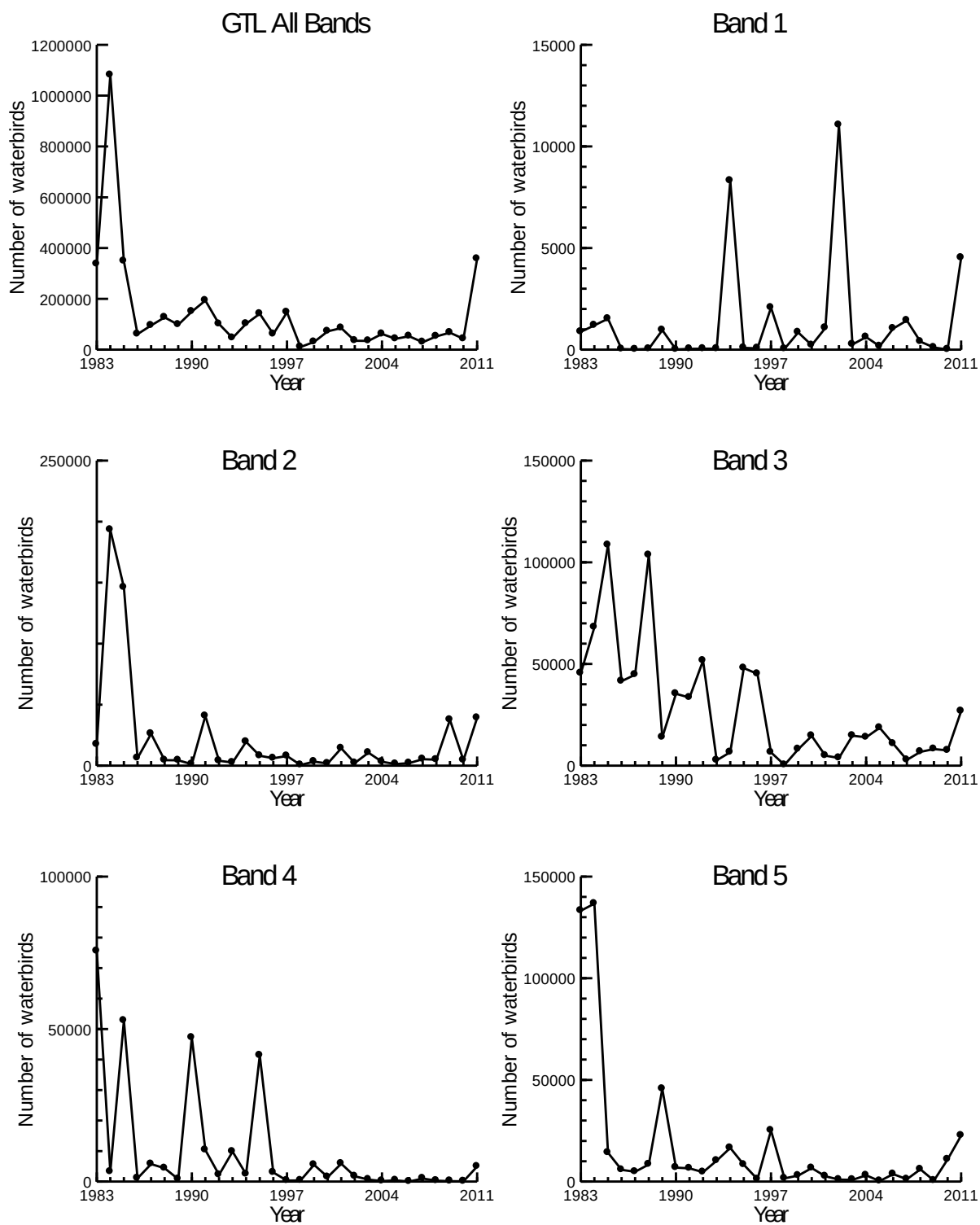




Figure 17. Grey teal 6-10

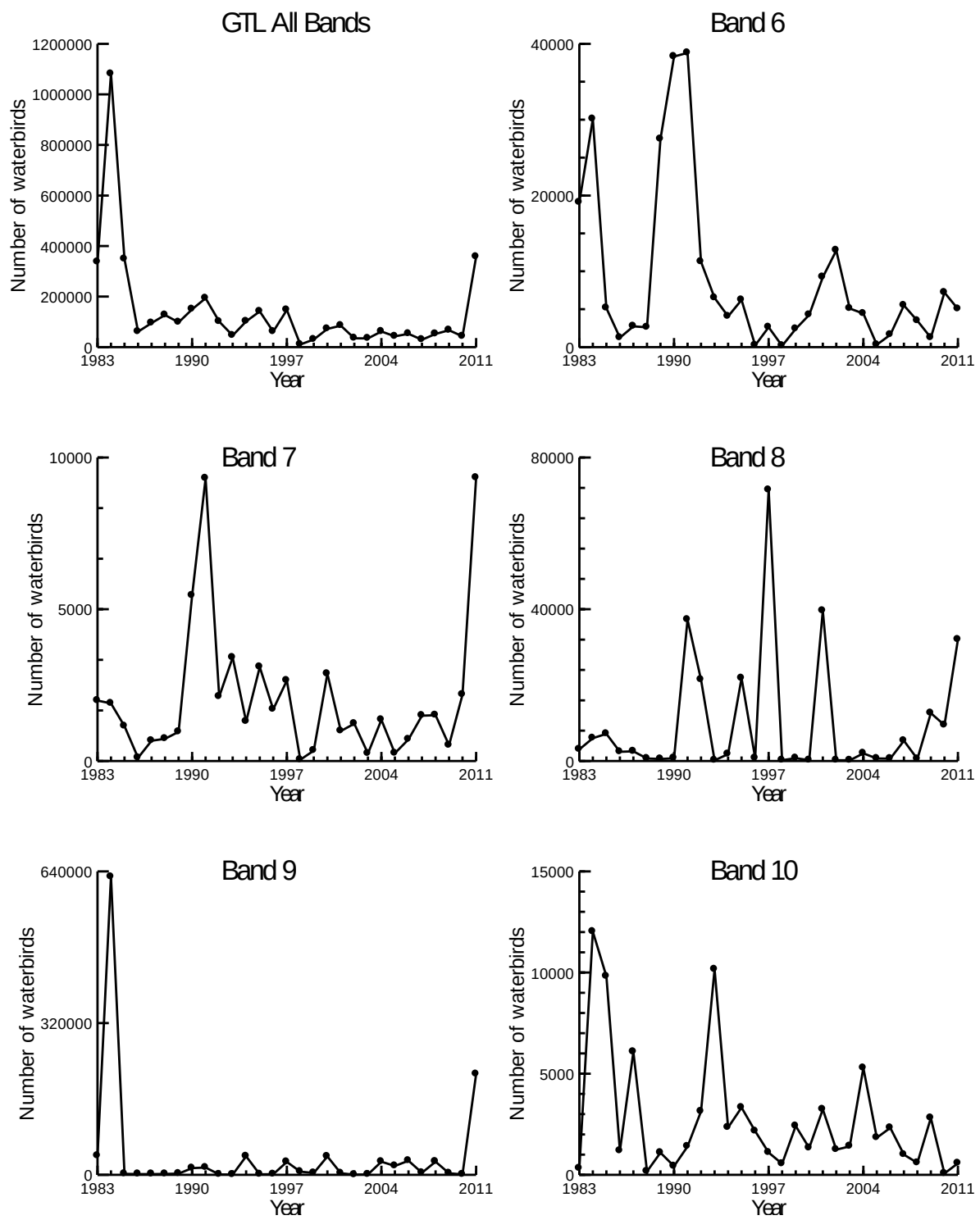


Figure 18. Hardhead 1-5

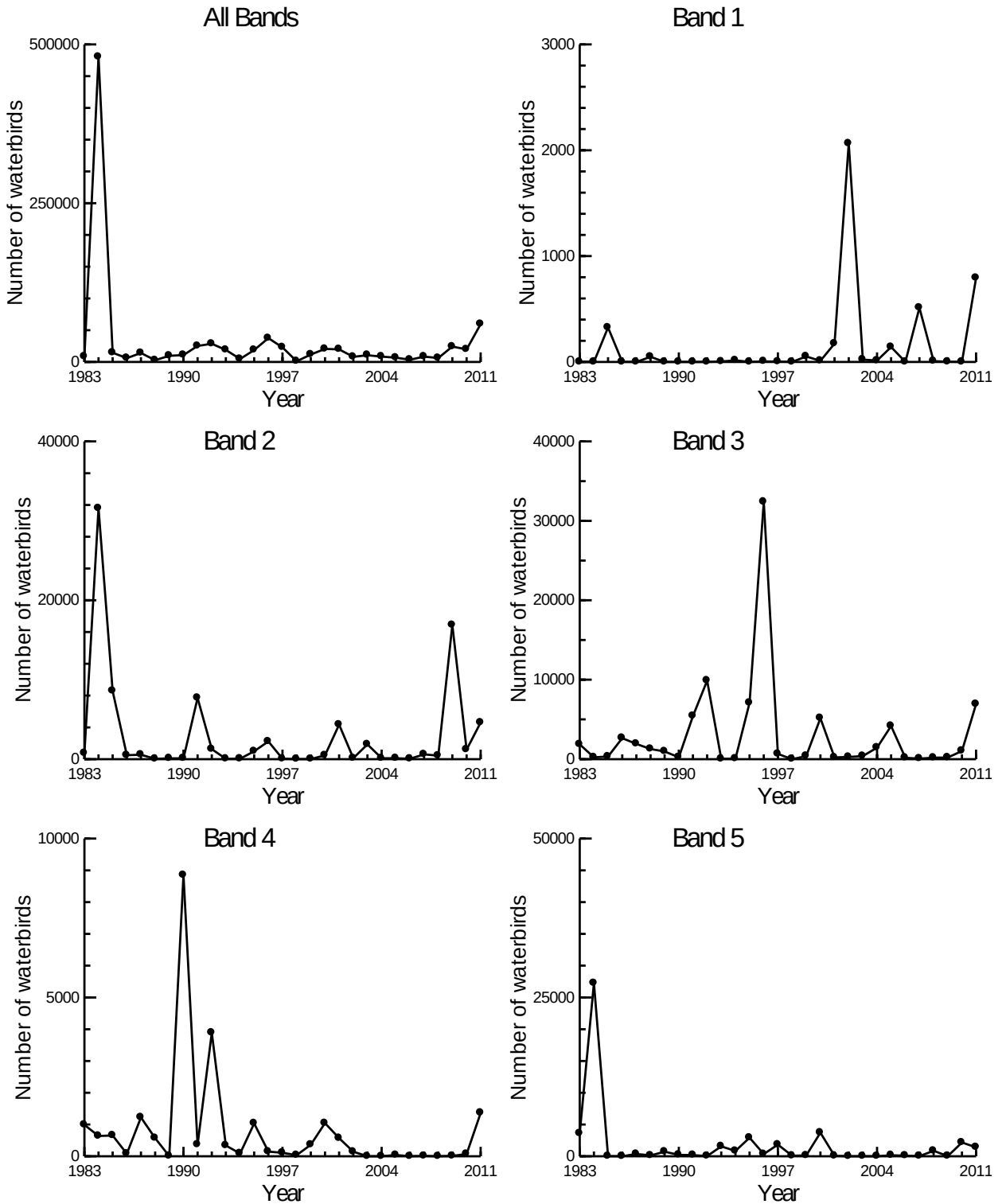


Figure 19. Hardhead 6-10

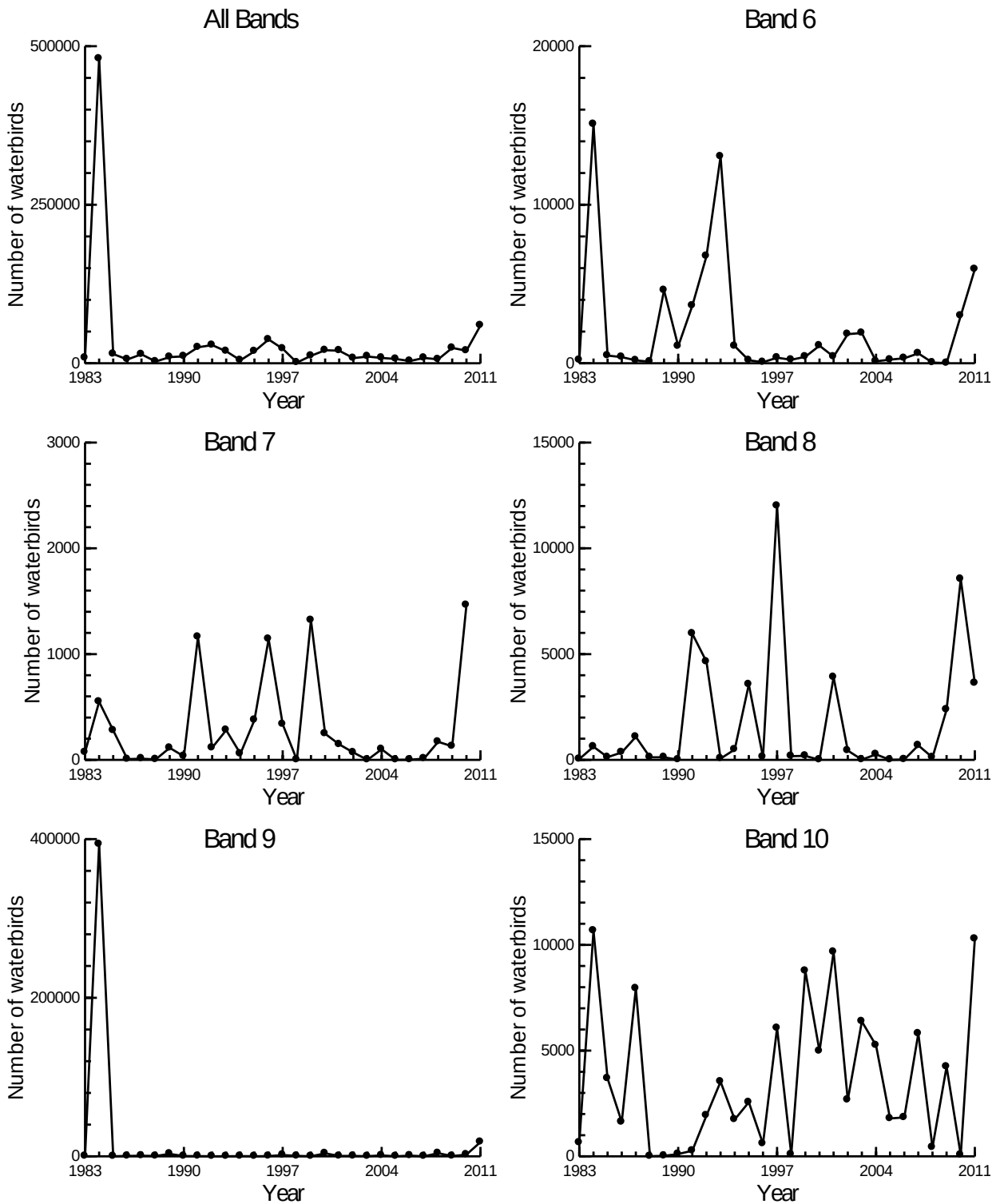
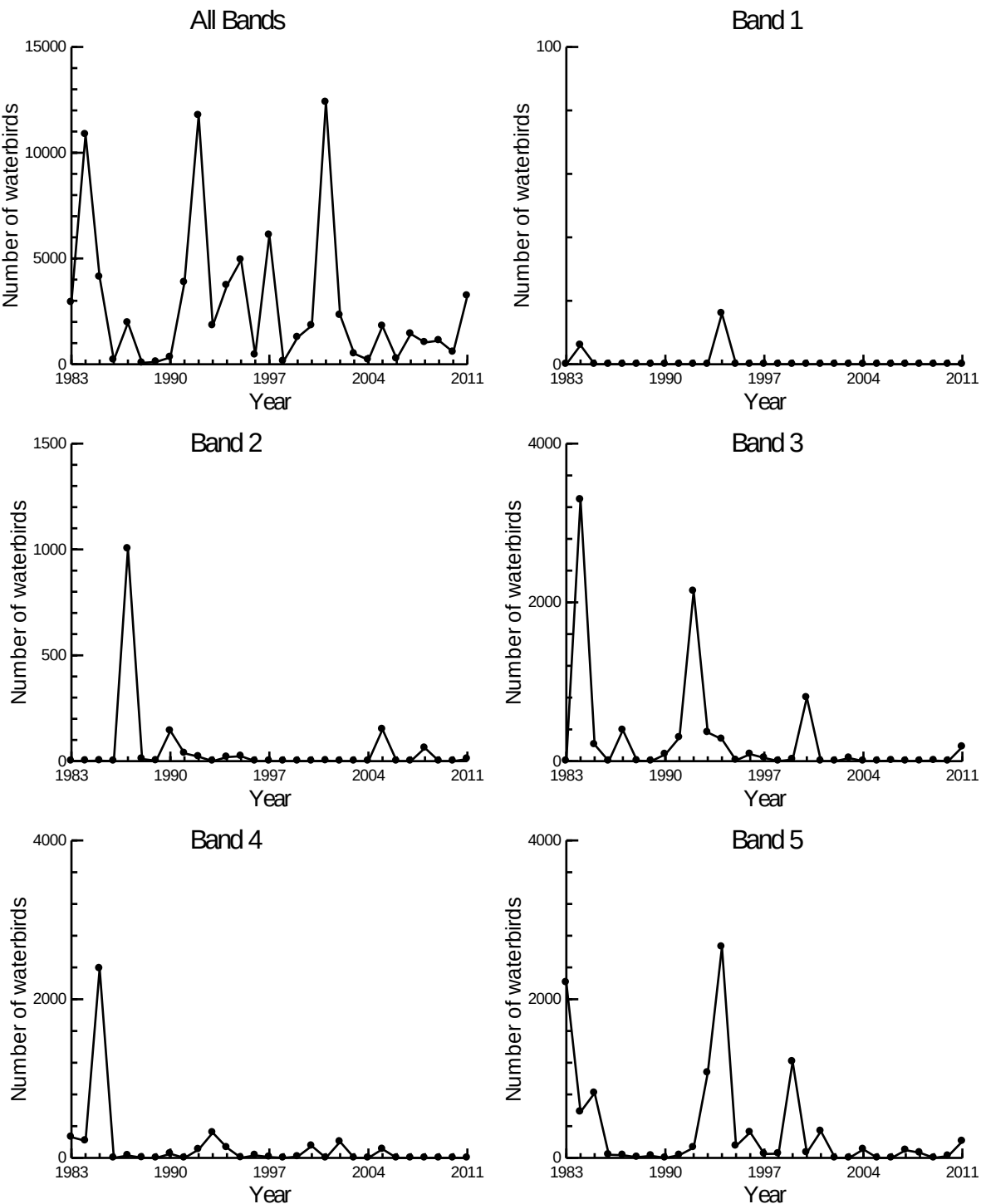
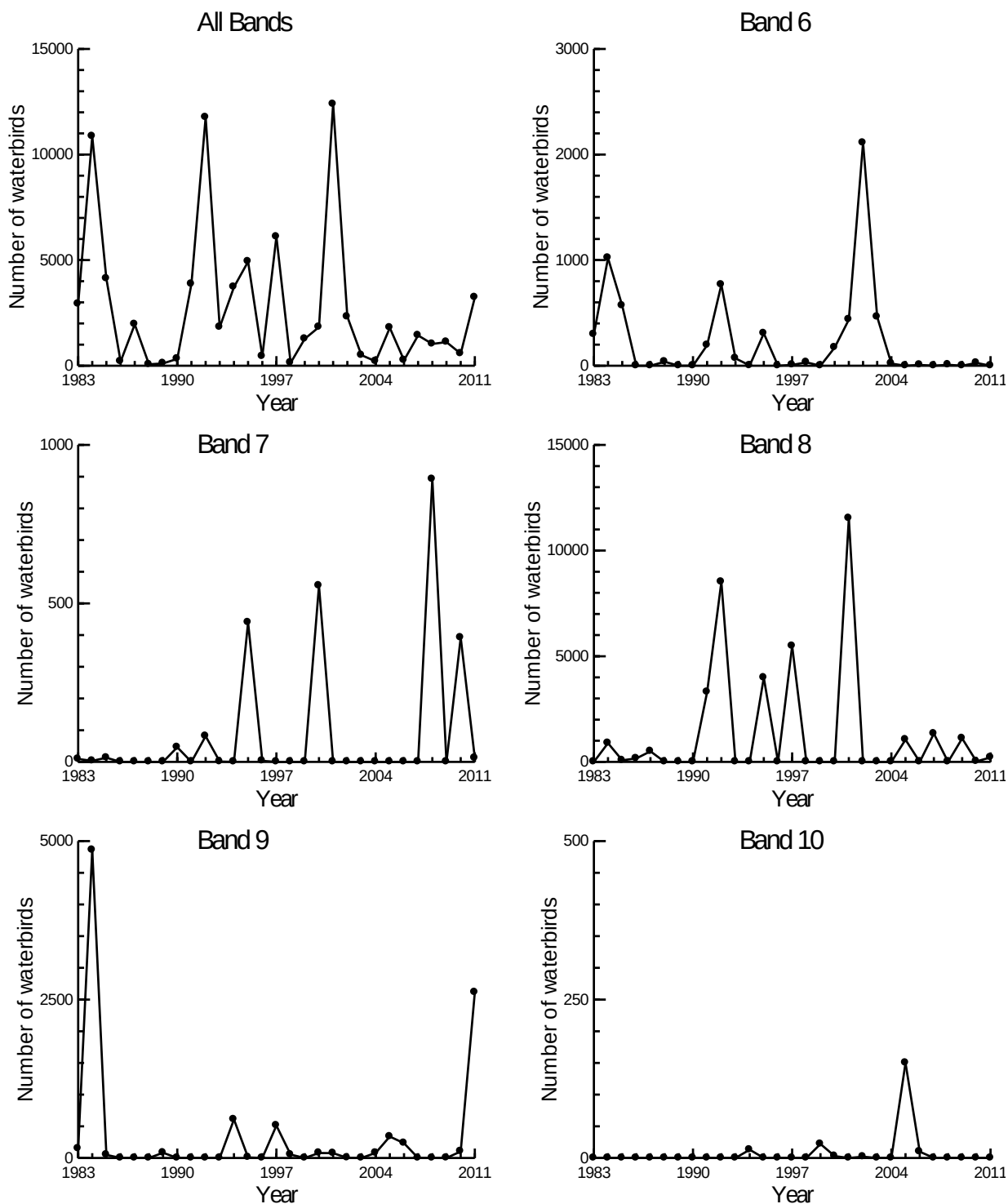


Figure 20. Freckled duck 1-5



# Figure 21. Freckled duck 6-10



Scales vary on graphs

Figure 22. Australian shelduck 1-5

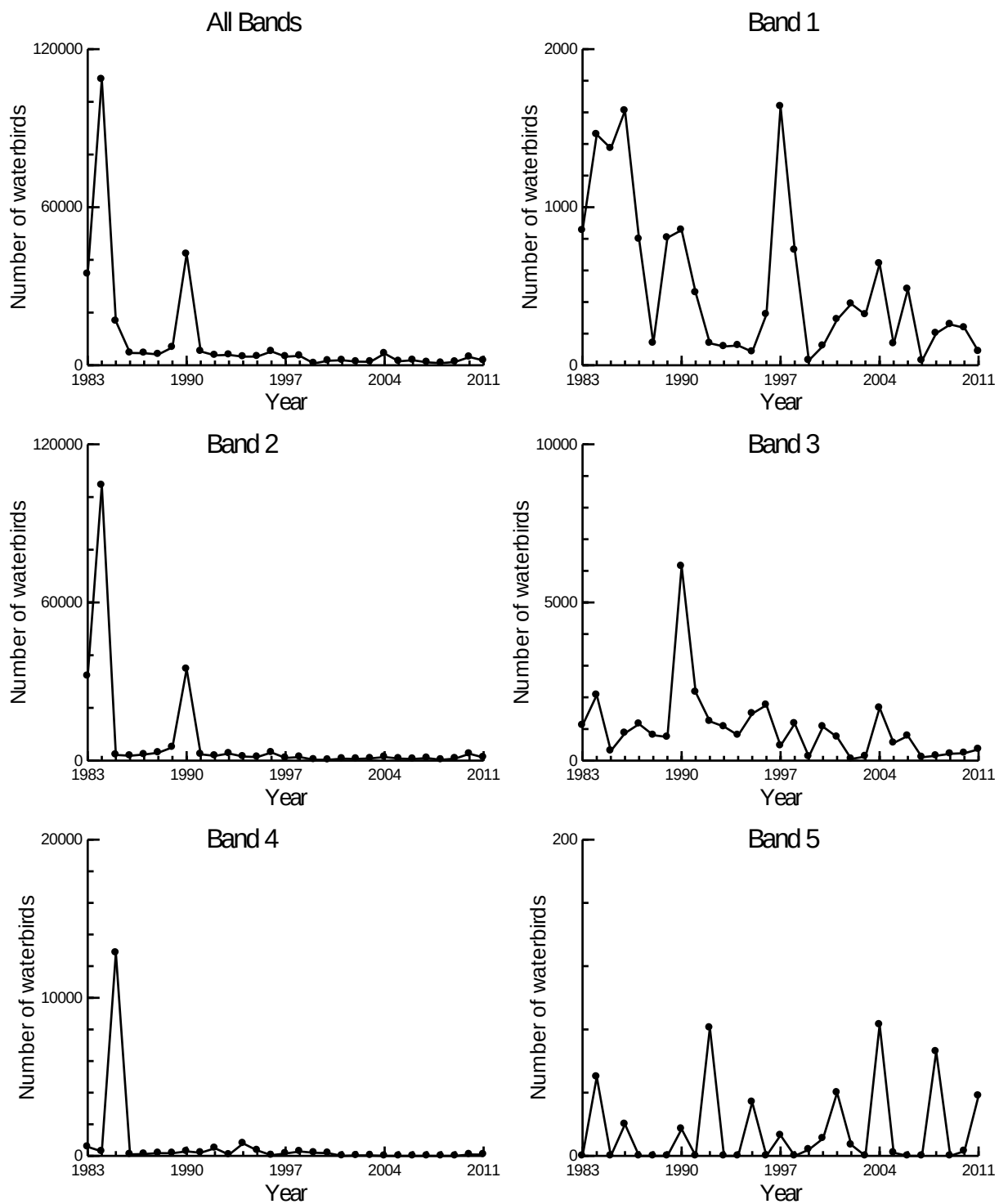


Figure 23. Australian shelduck 6-10

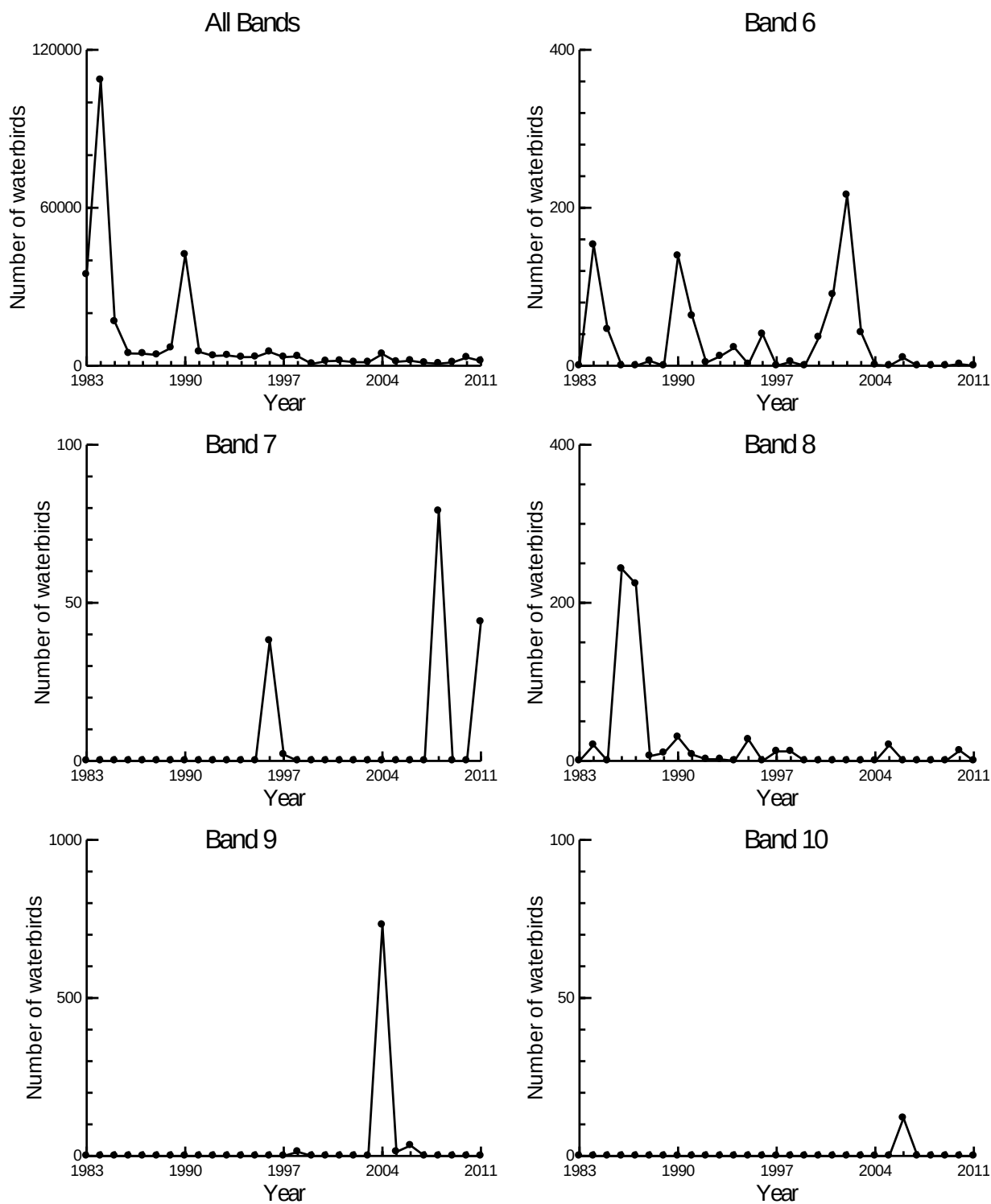


Figure 24. Pink-eared duck 1-5

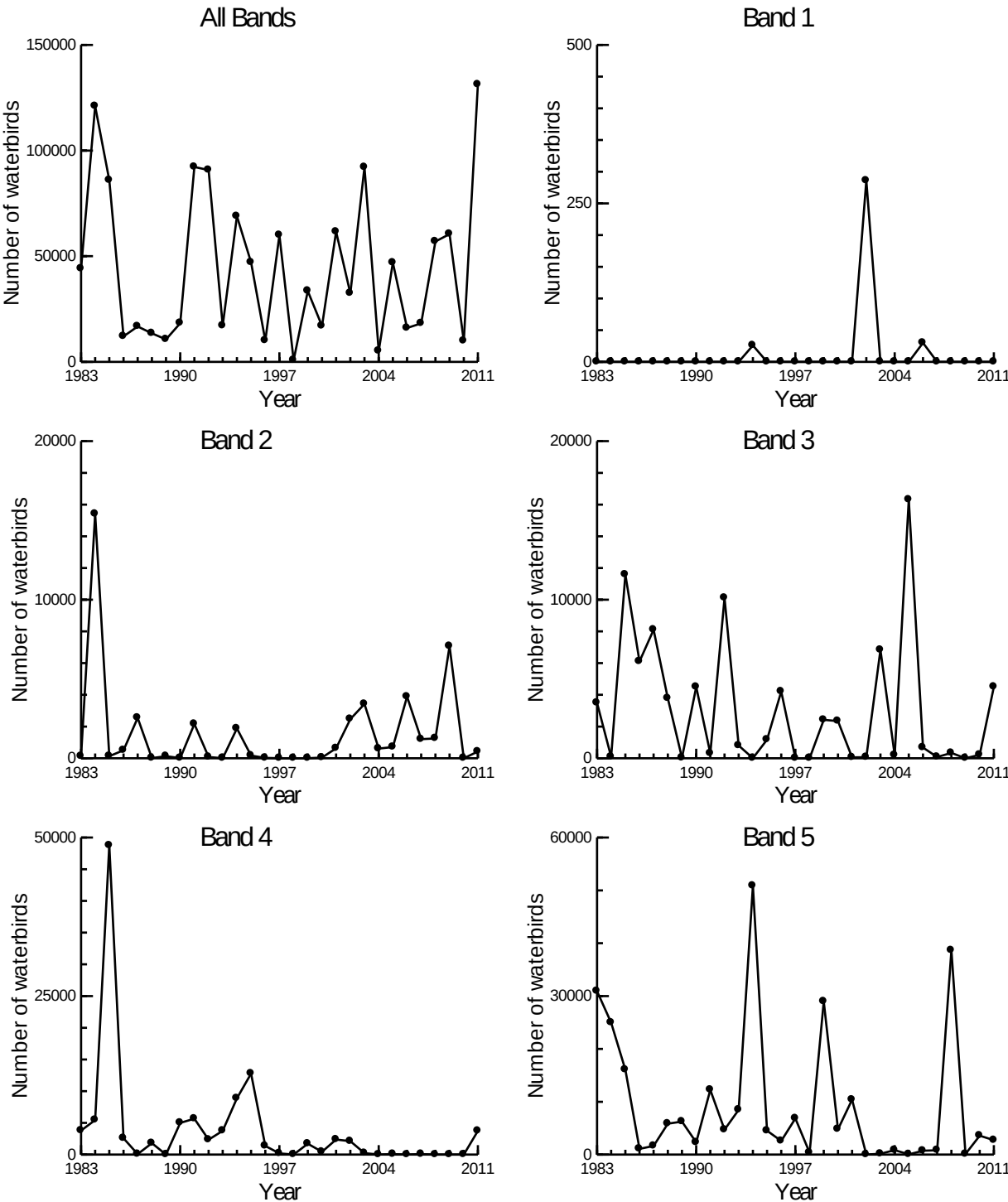




Figure 25. Pink-eared duck 6-10

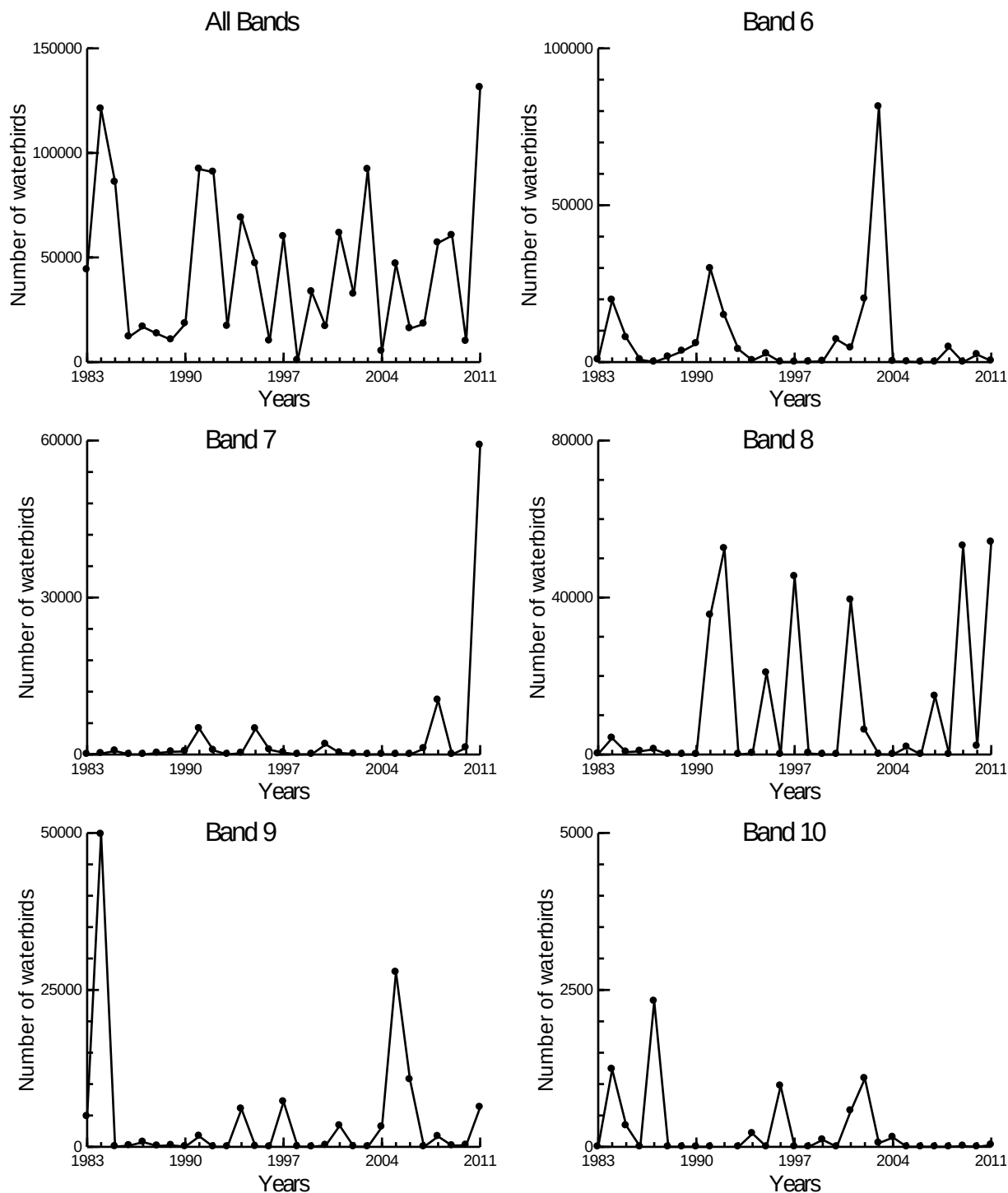


Figure 26. Plumed whistling-duck 1-5

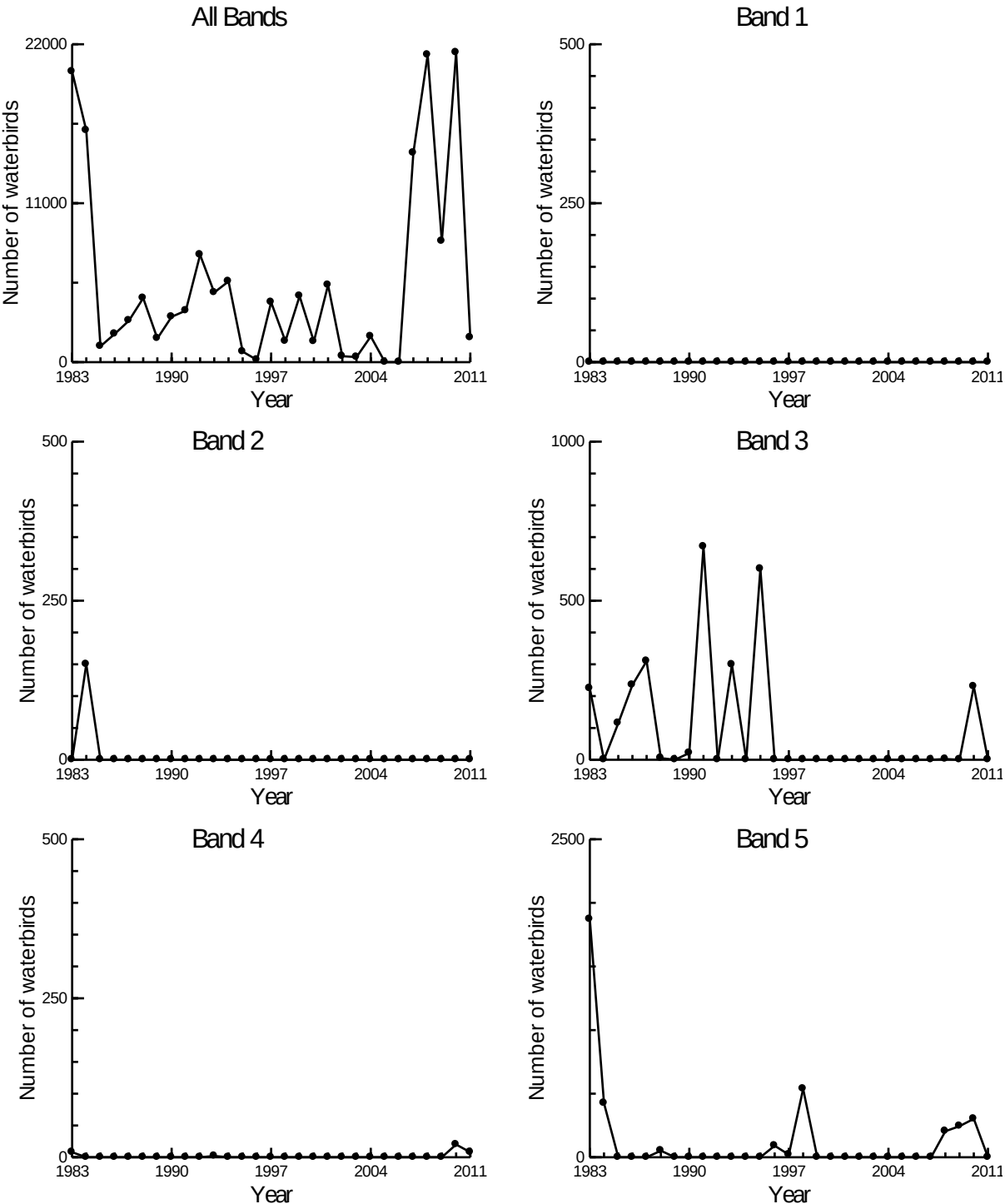


Figure 27. Plumed whistling-duck 6-10

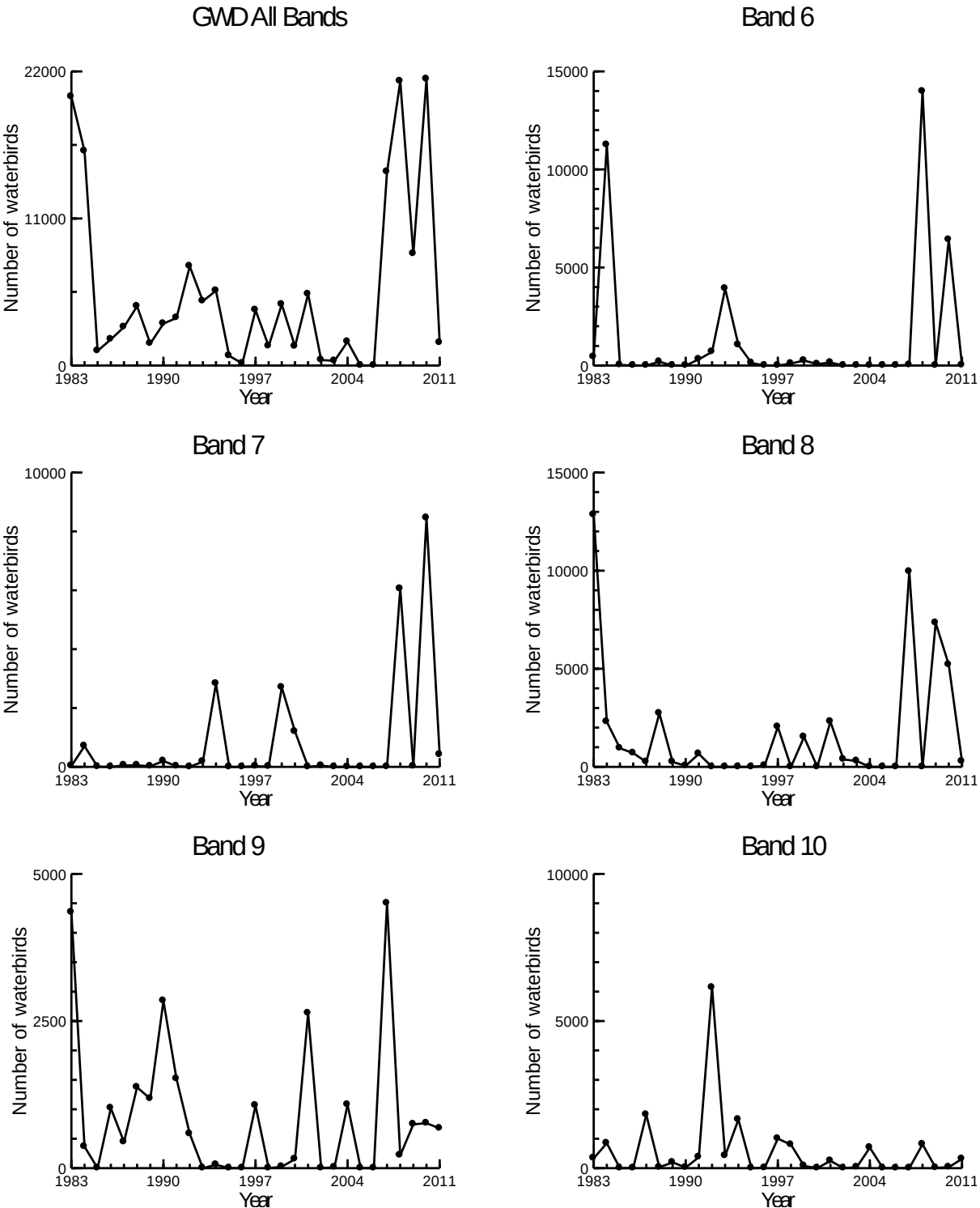


Figure 28. Australian wood duck 1-5

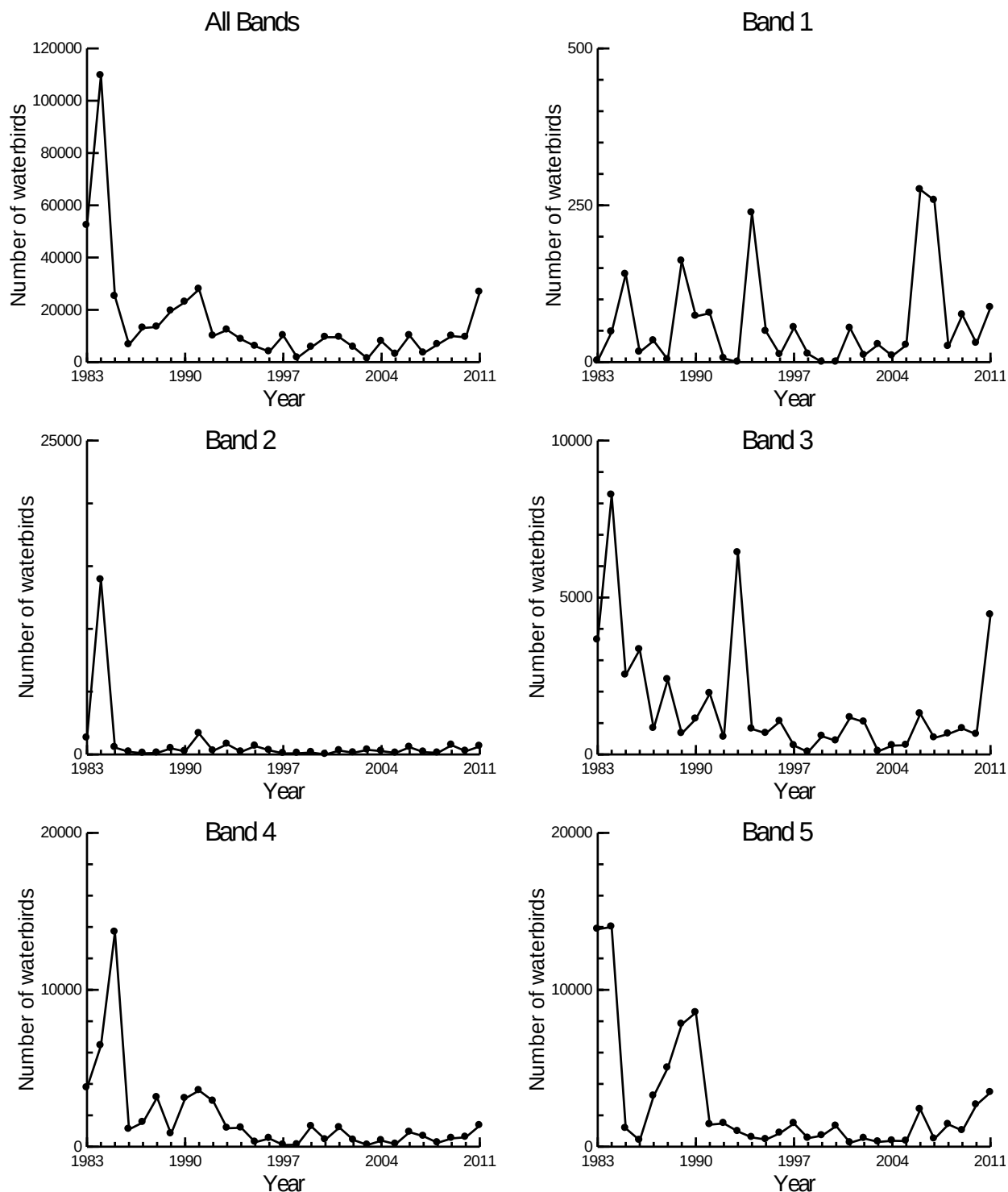


Figure 29. Australian wood duck 6-10

