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THE UNIVERSITY OF
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Environment,
Climate Change
& Water

Aerial Survey of Wetland Birds in Eastern Australia - October 2010 Annual Summary Report

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Results summary

1. There was significant flooding throughout the entire eastern Australia survey area. This included widespread flooding in the Murray-Darling Basin and Lake Eyre Basin. Extensive flooding has continued to occur since completion of aerial surveys across many river systems, increasing wetland habitat to available in inland areas. Most key wetlands were either fully flooded or partially flooded (Fig. 1).
2. In particular, this included further flooding following from 2009 in the Lake Eyre Basin rivers. Wetland habitat was extensive in the Cooper Creek Catchment as well as the Diamantina and Georgina river systems. The Diamantina and Cooper Creek systems flowed into Lake Eyre. Wetlands on the lower Cooper Creek were flooded for the first time since 1990.
3. Throughout the Murray-Darling Basin, there was widespread flooding. This included extensive waterbird habitat on the Paroo River, including the Paroo overflow lakes, Cuttaburra channels, Macquarie Marshes, Lowbidgee wetlands and Menindee Lakes. Similarly, there were large flooded areas throughout Victoria and South Australia.
4. The wetland area index rose above the long term average for the first time since 1990 (Fig. 2).
5. The extensive wetland habitat meant that waterbirds were distributed sparsely across the entire region but there was an increase in total numbers of birds estimated, the highest overall total since 2001 (Fig. 3).

This survey is run by the University of NSW and the NSW Department of Environment Climate Change & Water, 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.

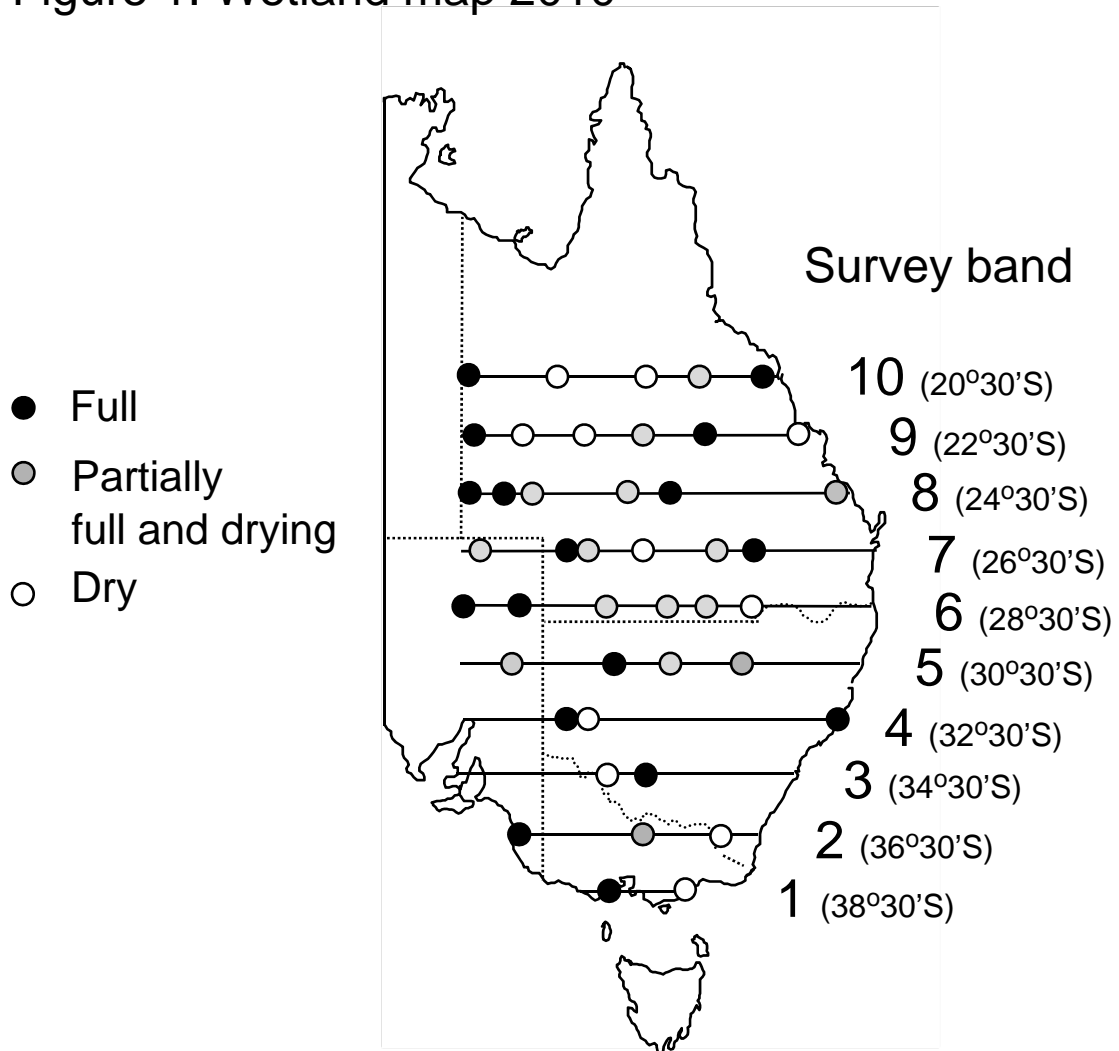
Result summary continued

7. The breeding index (all species combined) was the highest on record and was strongly concentrated (94%) in Band 3. Breeding species richness was also high, well above the long term average, the highest recorded since the mid 1990s

Acknowledgements

We thank Peter Morris and Terry Korn for acting as expert observers during the survey. We also thank Richard Byrne of NSW National Parks and Wildlife Service for piloting the aircraft. We also thank Jessica Armstrong, Louise Symes and Viyanna Leo for their help with data entry and verification.

Figure 1. Wetland map 2010



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

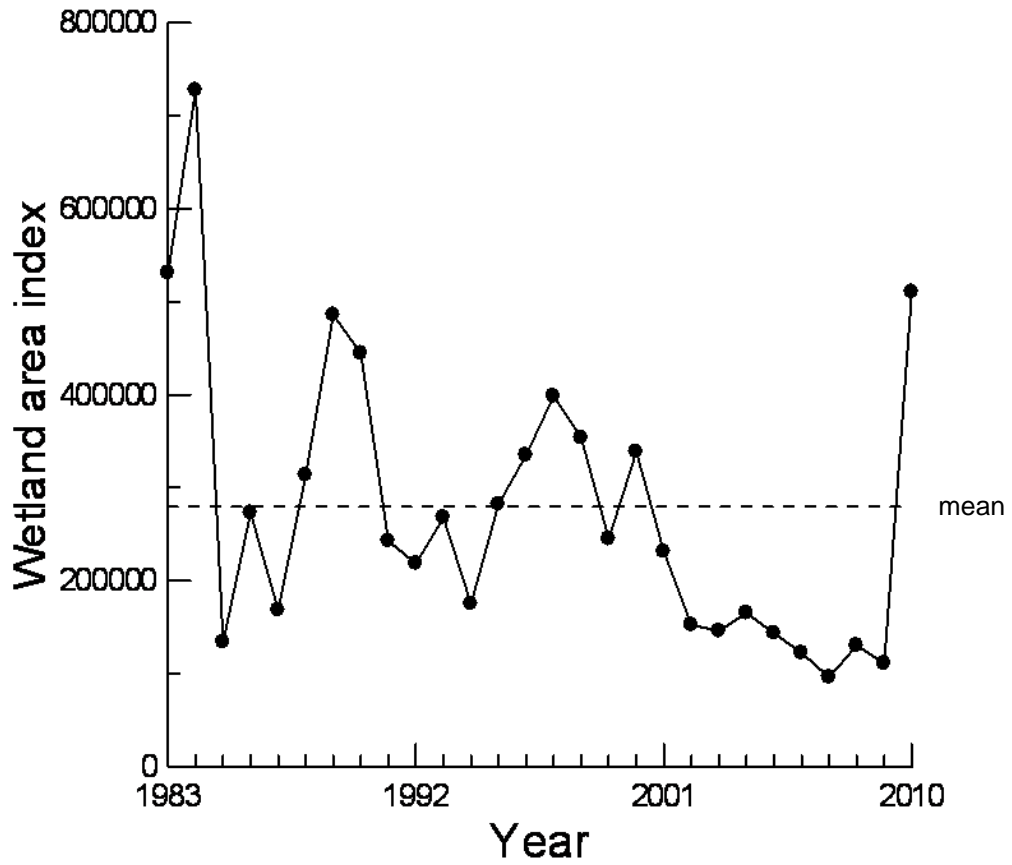


Figure 3. Total waterbirds

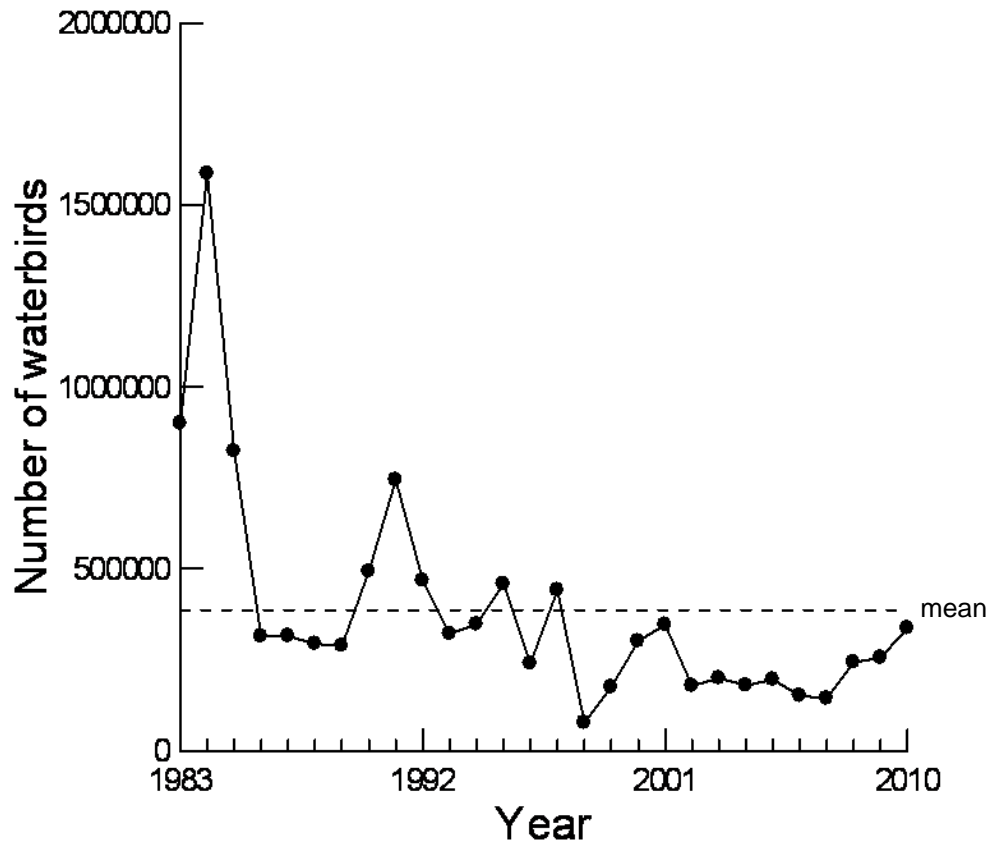
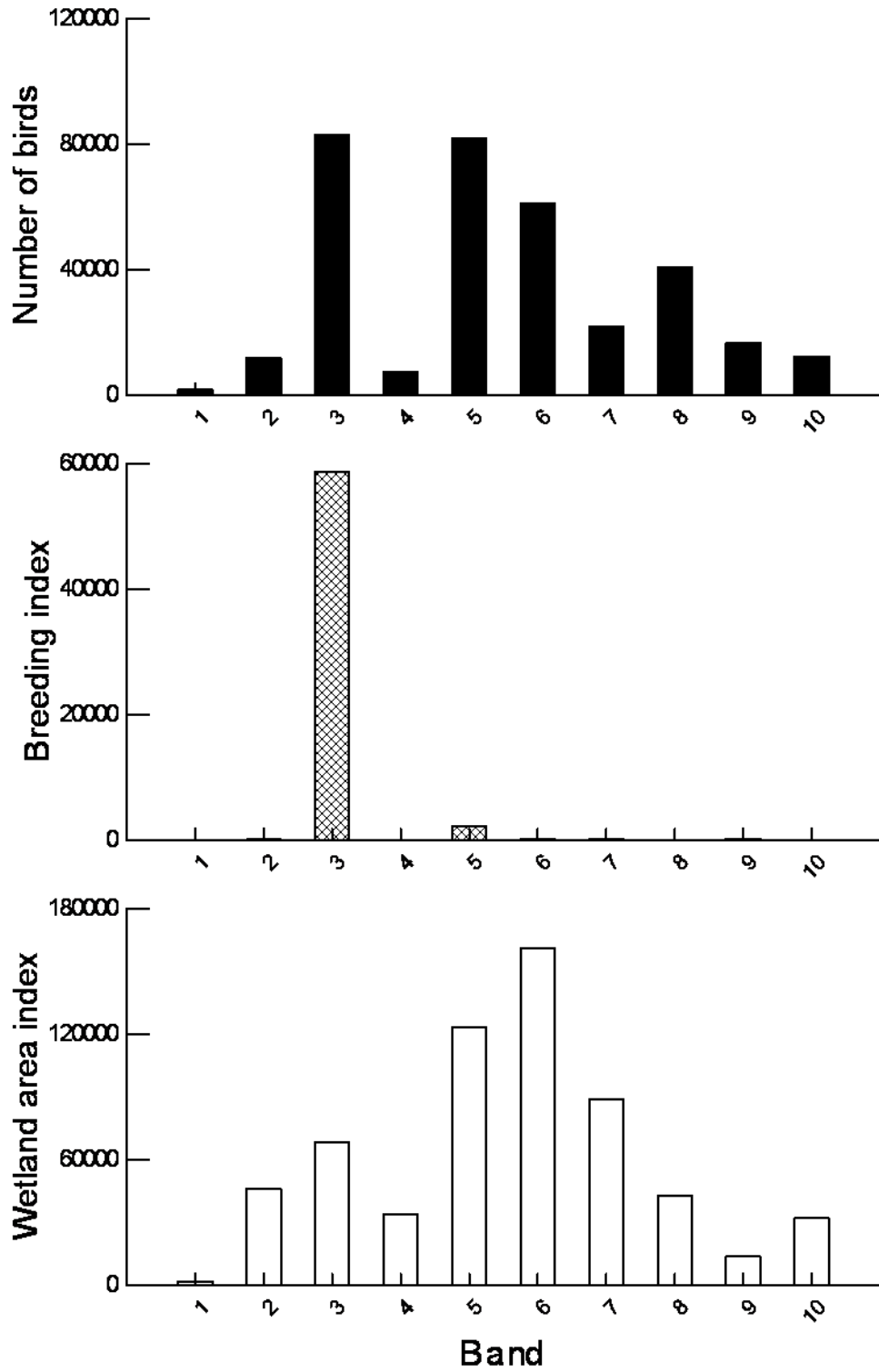


Figure 4. Band totals 2010



Scales vary on graph axes

Figure 5. Breeding index (all species)

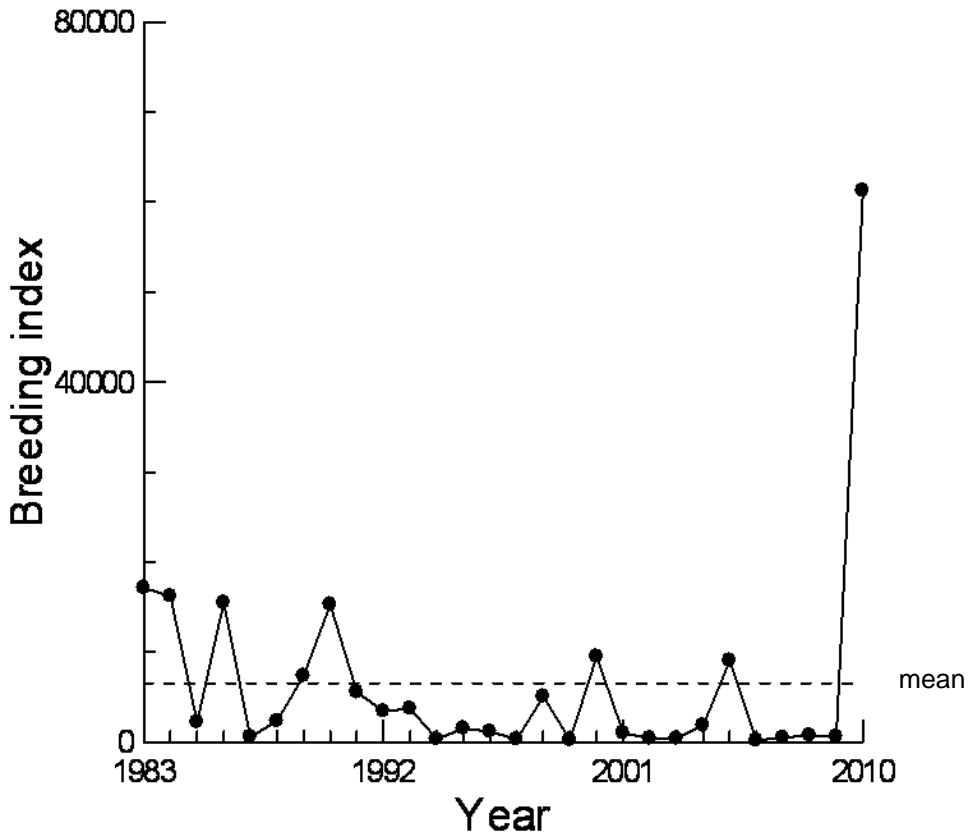
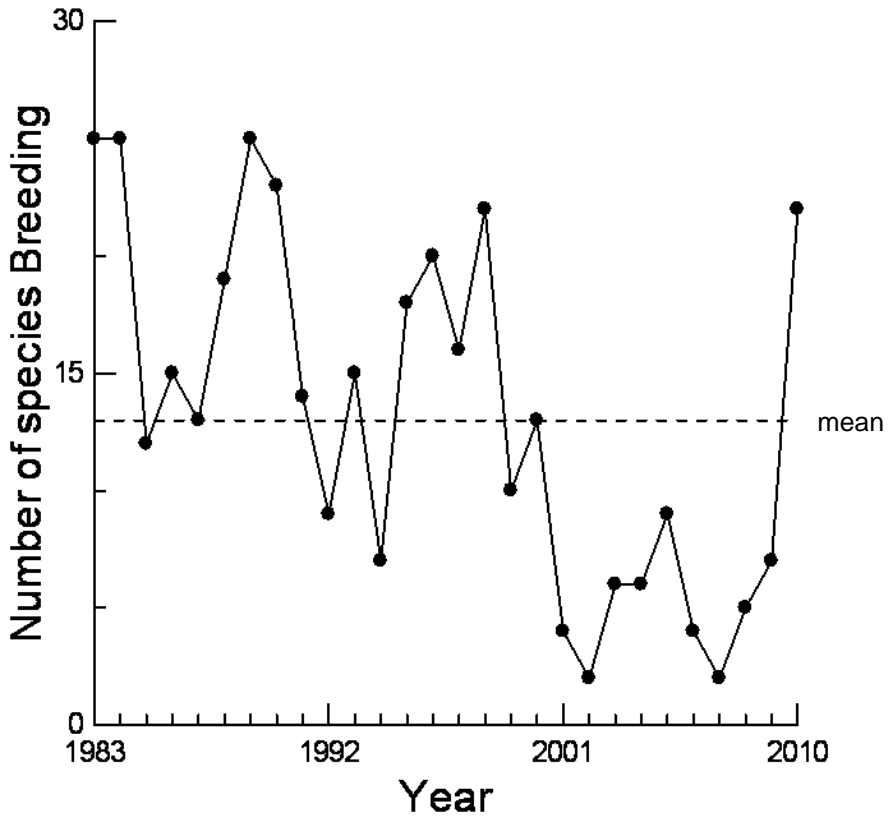
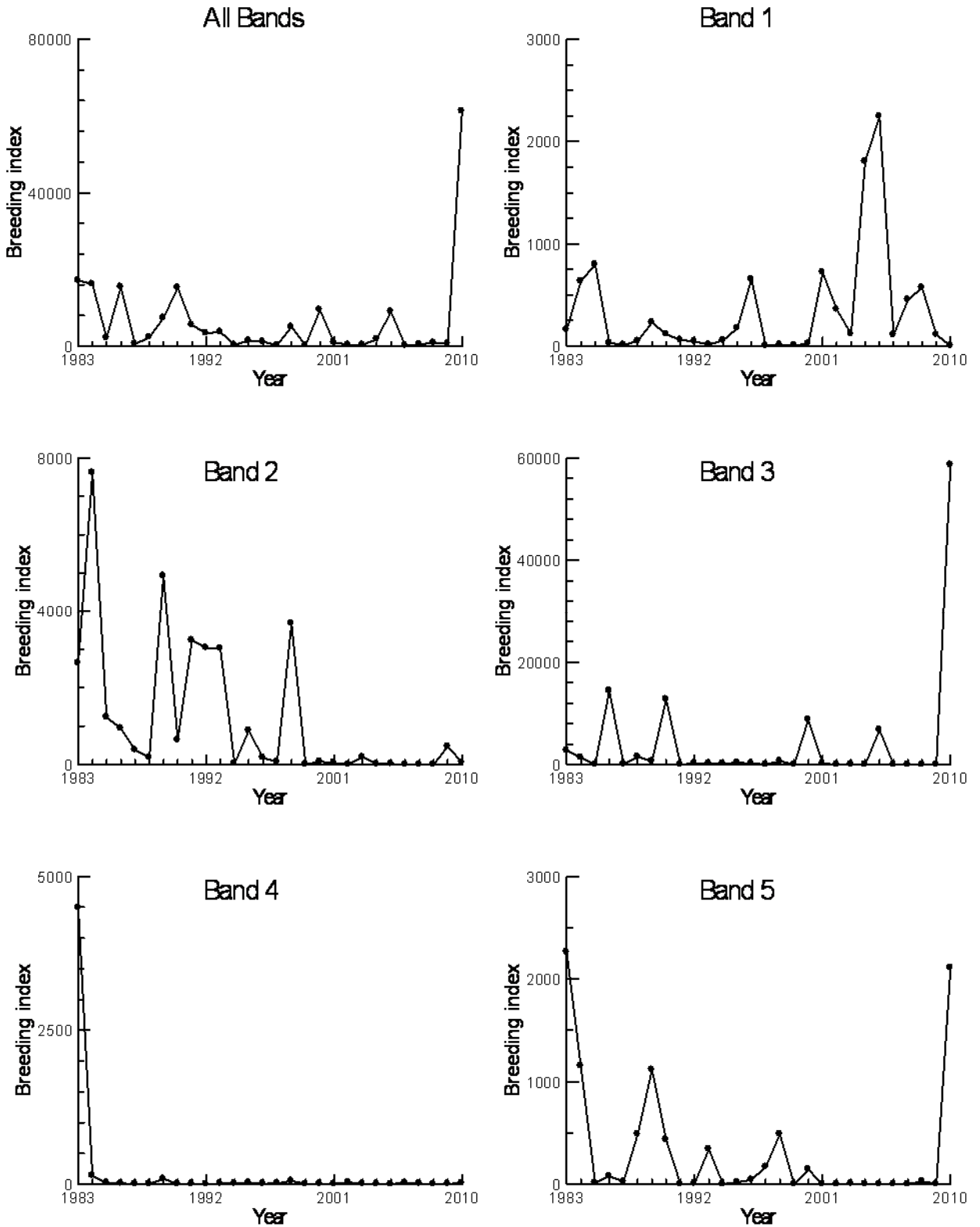


Figure 6. Number of species breeding



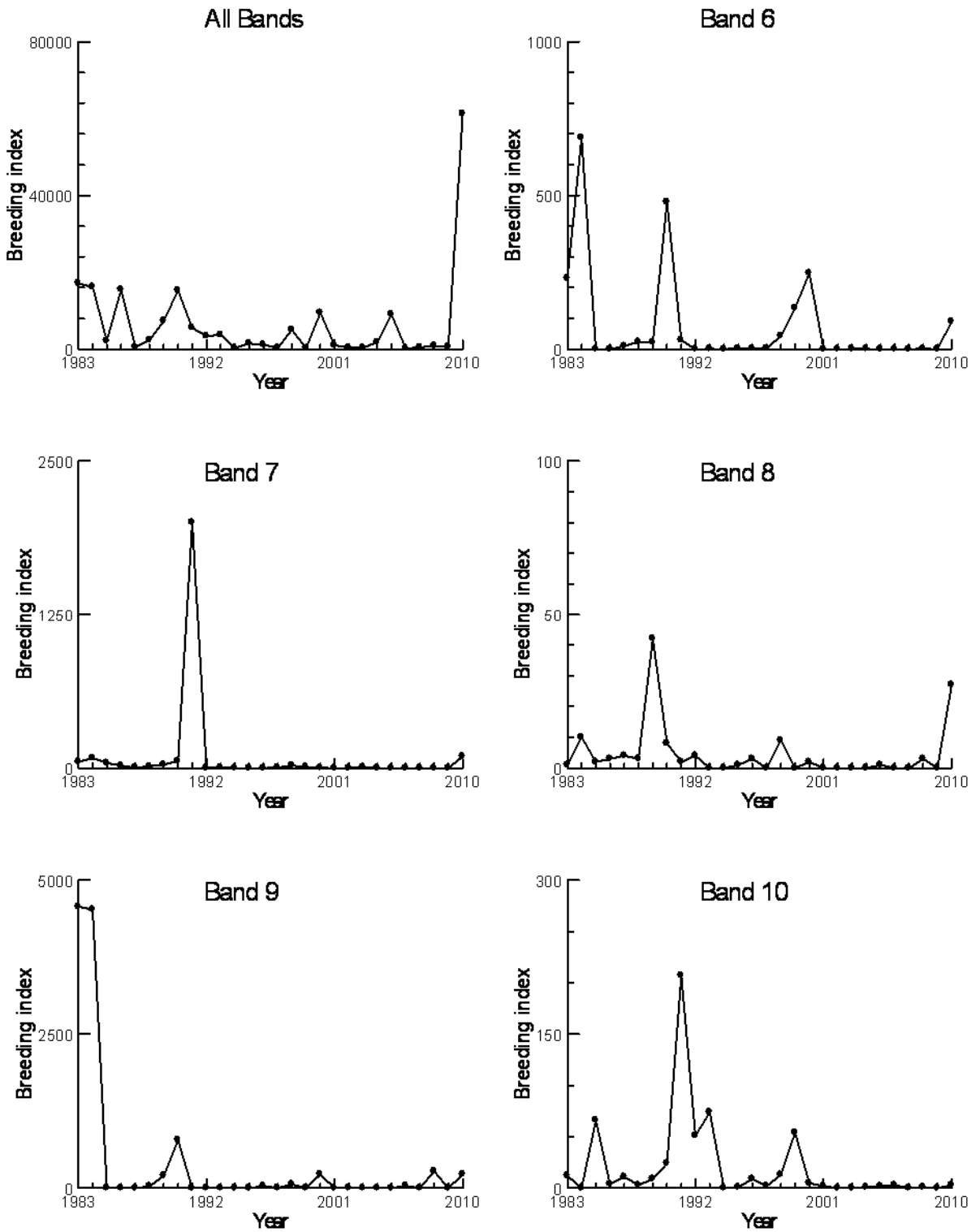
Scales vary on graph axes

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



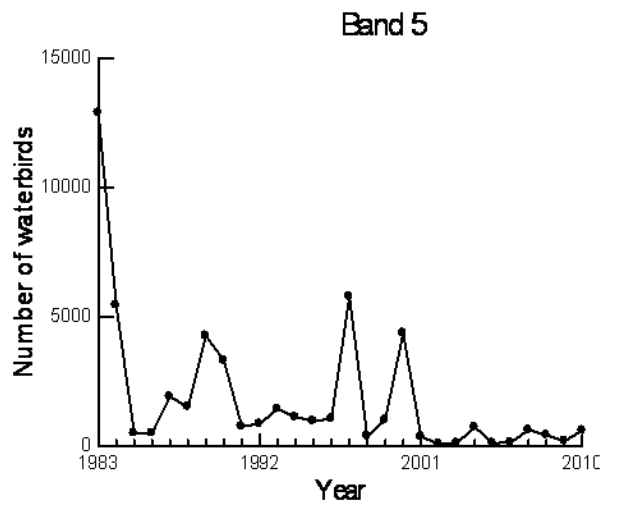
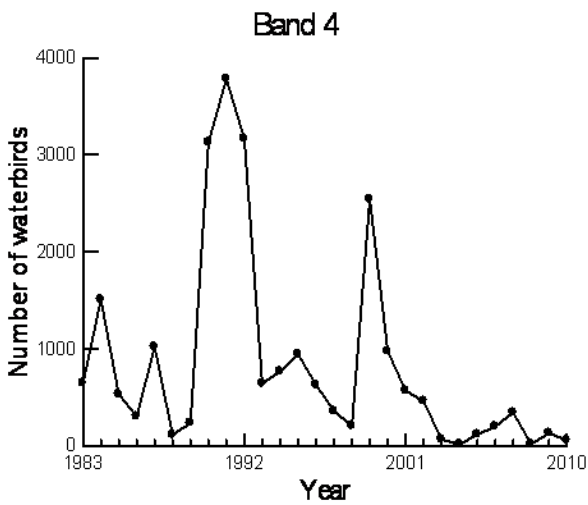
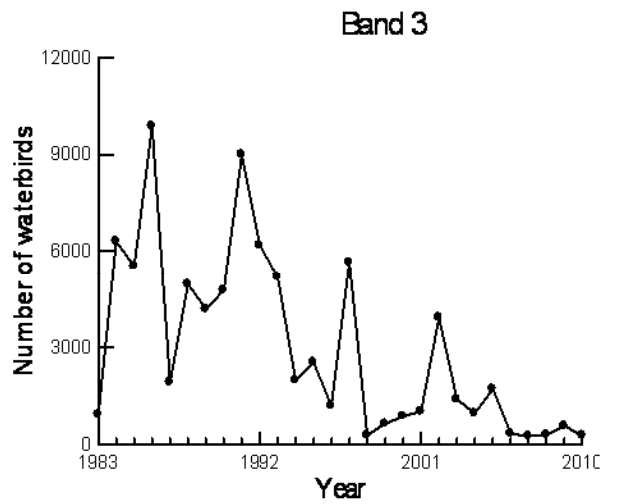
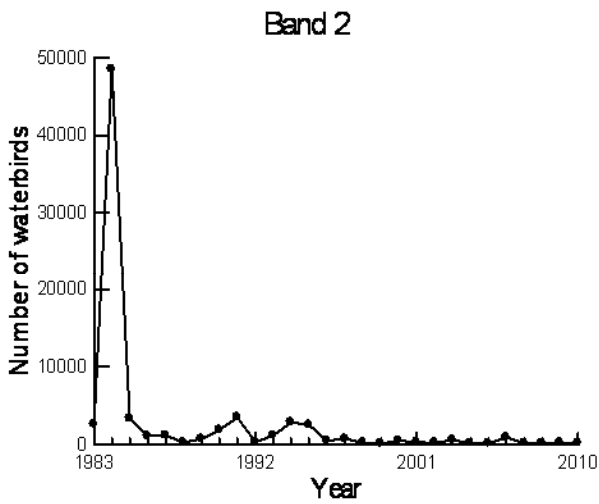
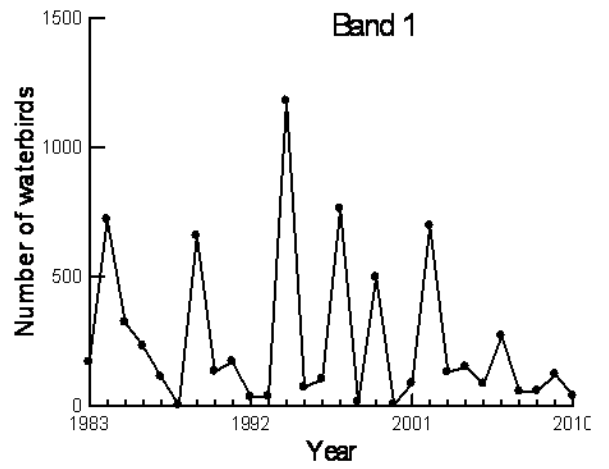
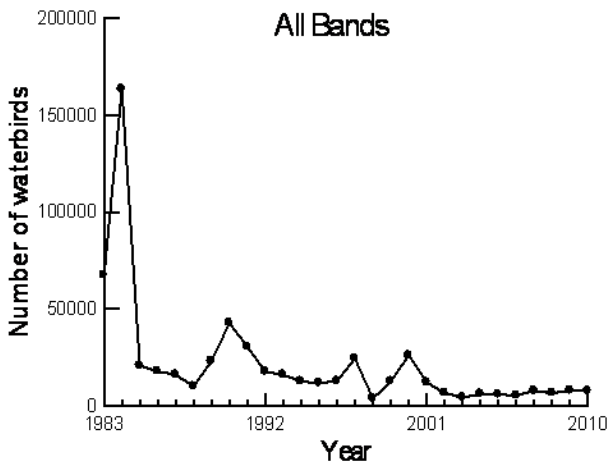
Scales vary on graphs

Figure 8. Breeding index 6-10



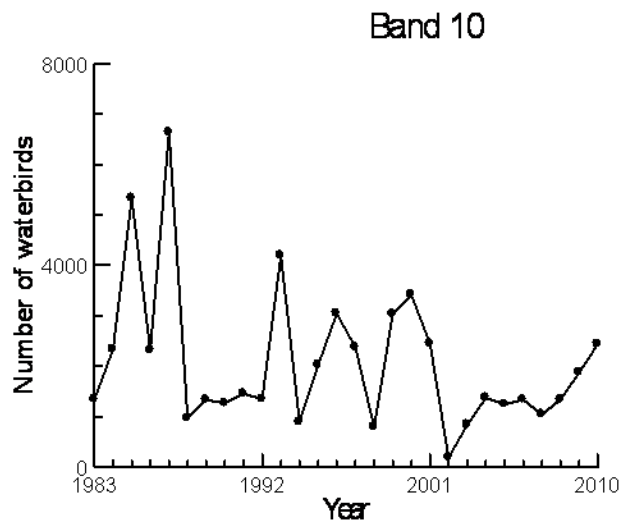
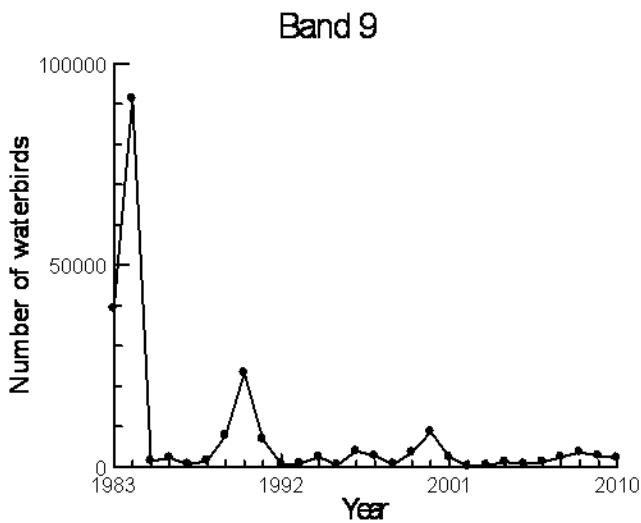
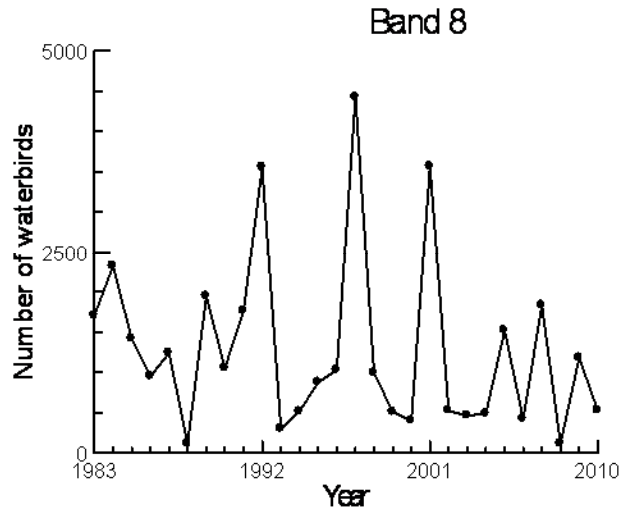
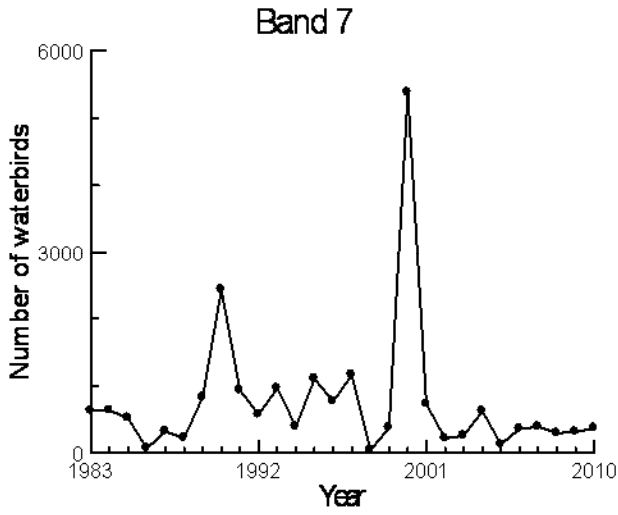
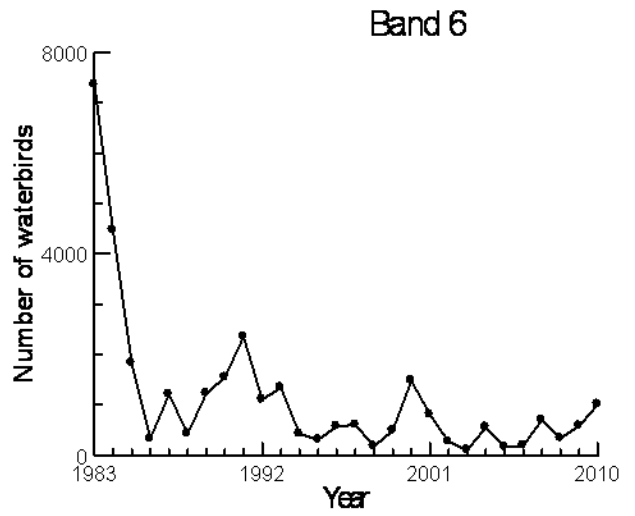
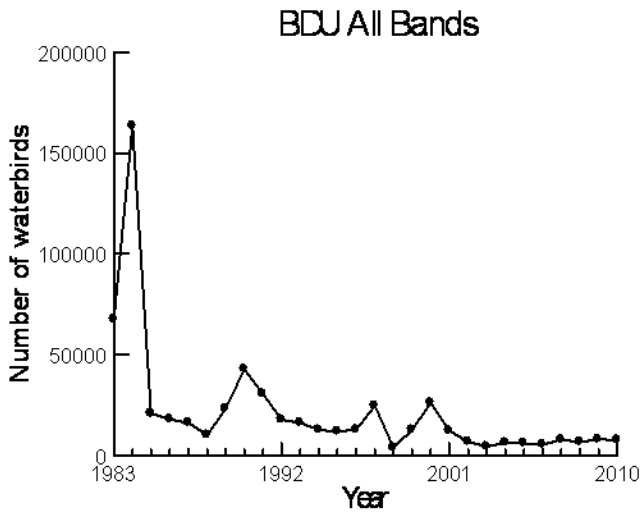
Scales vary on graphs

Figure 9. Pacific black duck 1-5



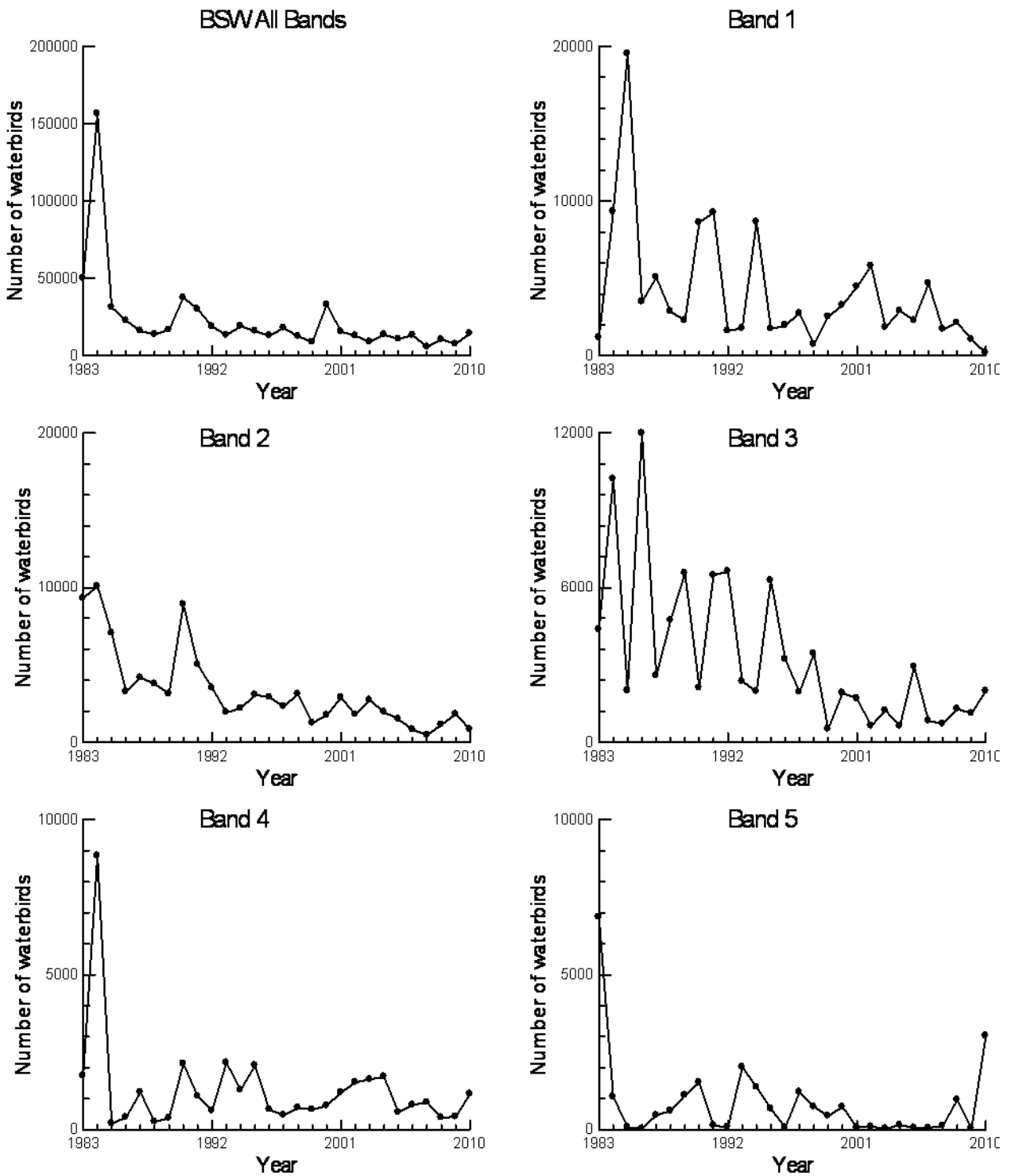
Scales vary on graphs

Figure 10. Pacific black duck 6-10



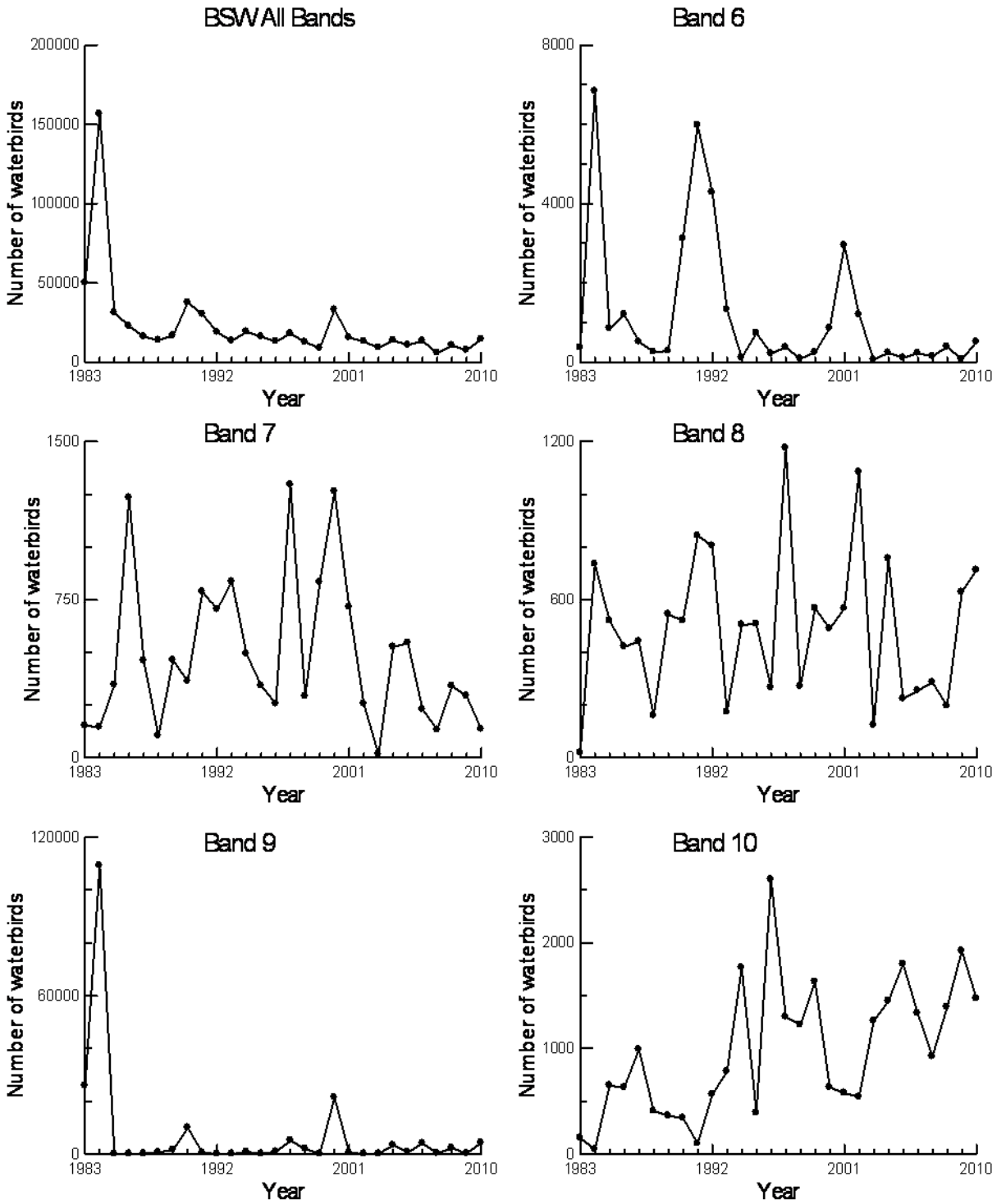
Scales vary on graphs

Figure 11. Black swan 1-5



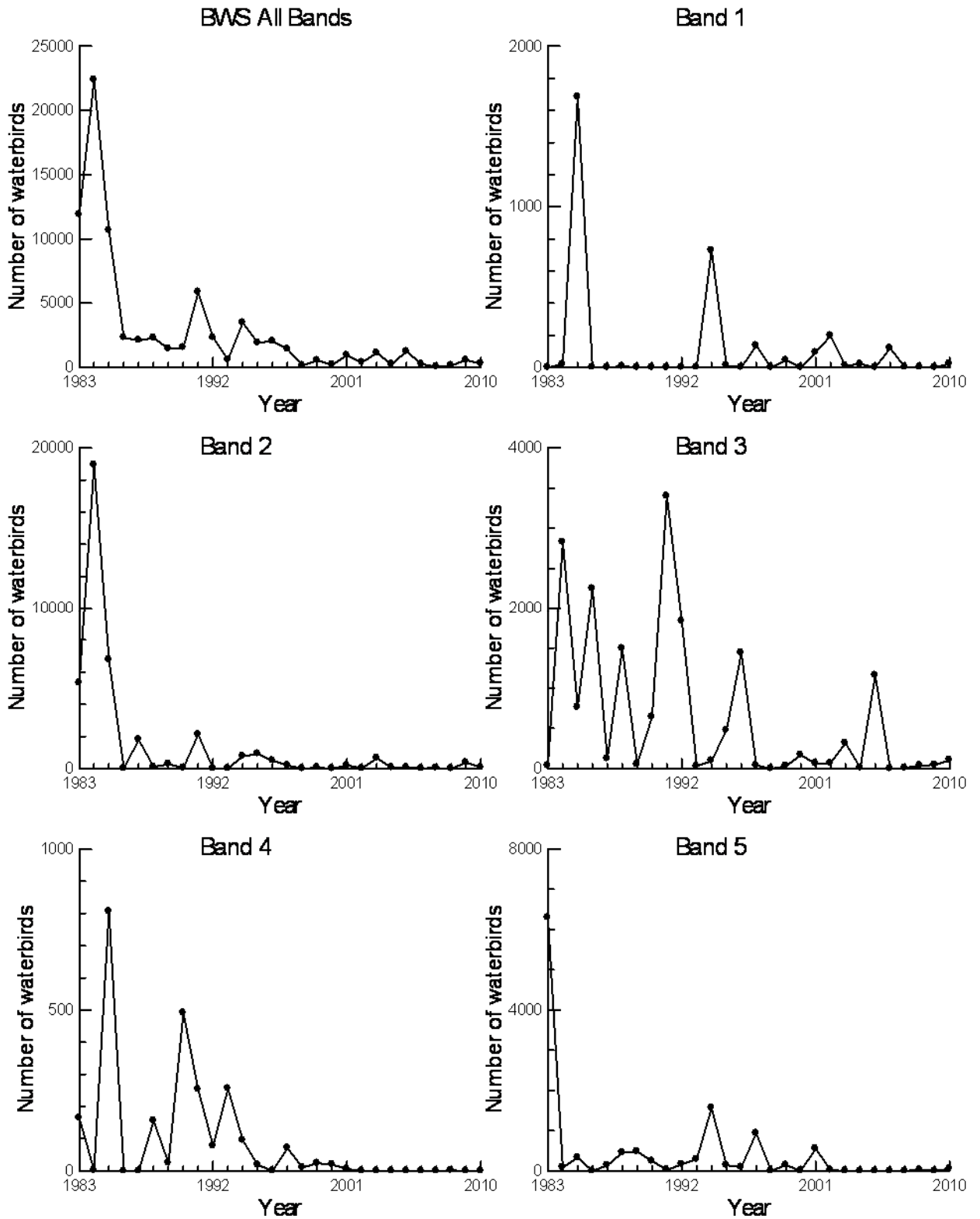
Scales vary on graphs

Figure 12. Black swan 6-10



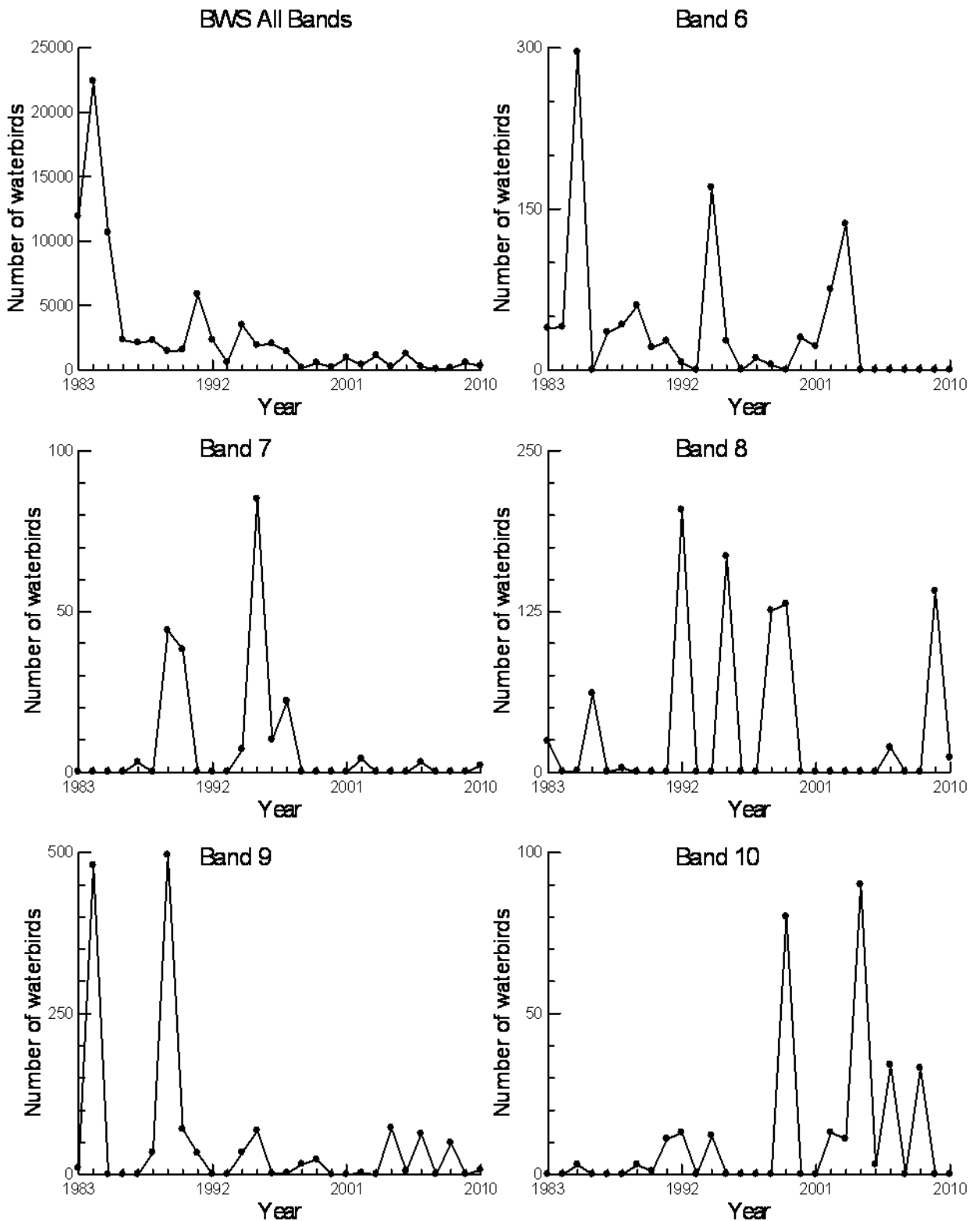
Scales vary on graphs

Figure 13. Australasian shoveler 1-5



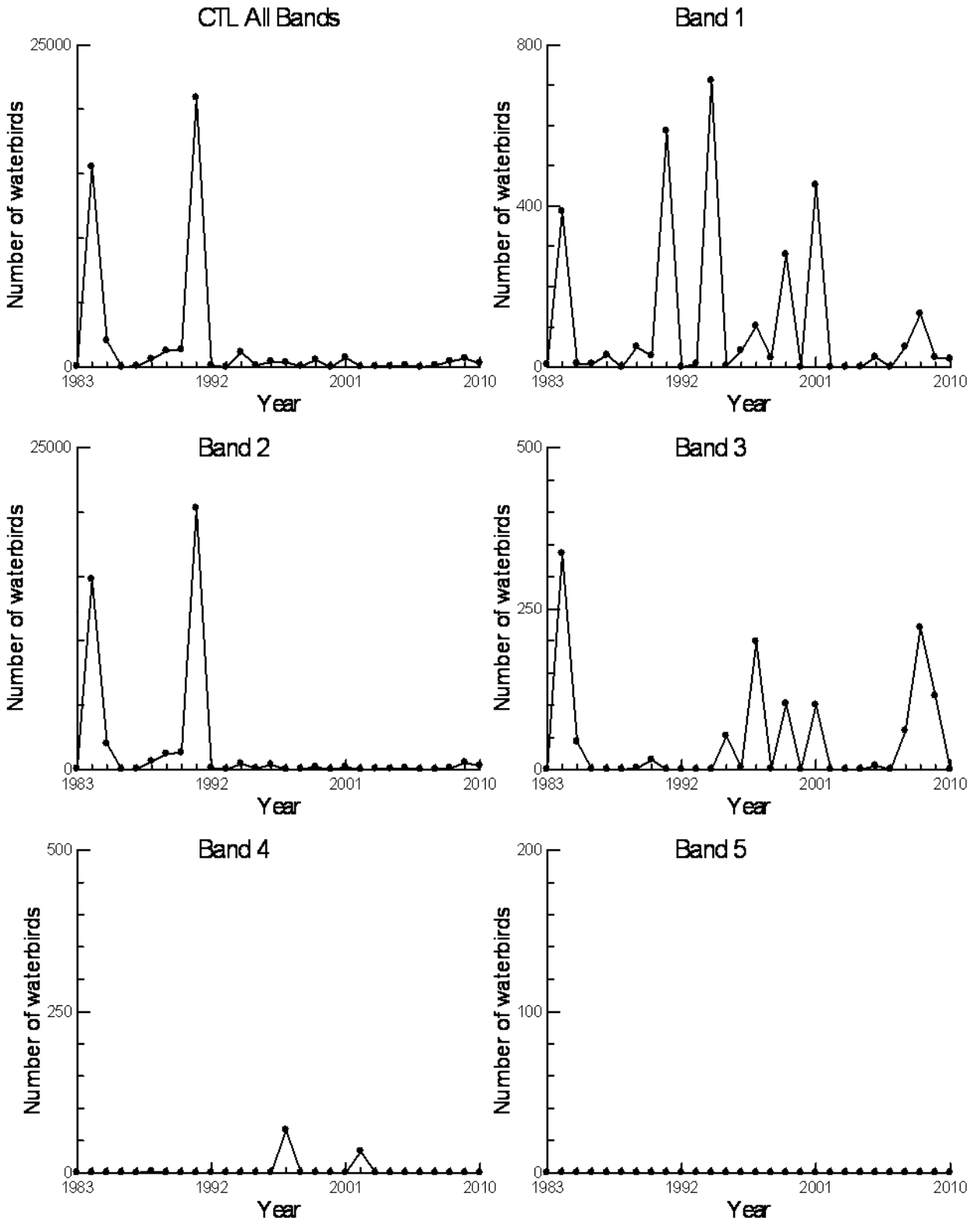
Scales vary on graphs

Figure 14. Australasian shoveler 6-10



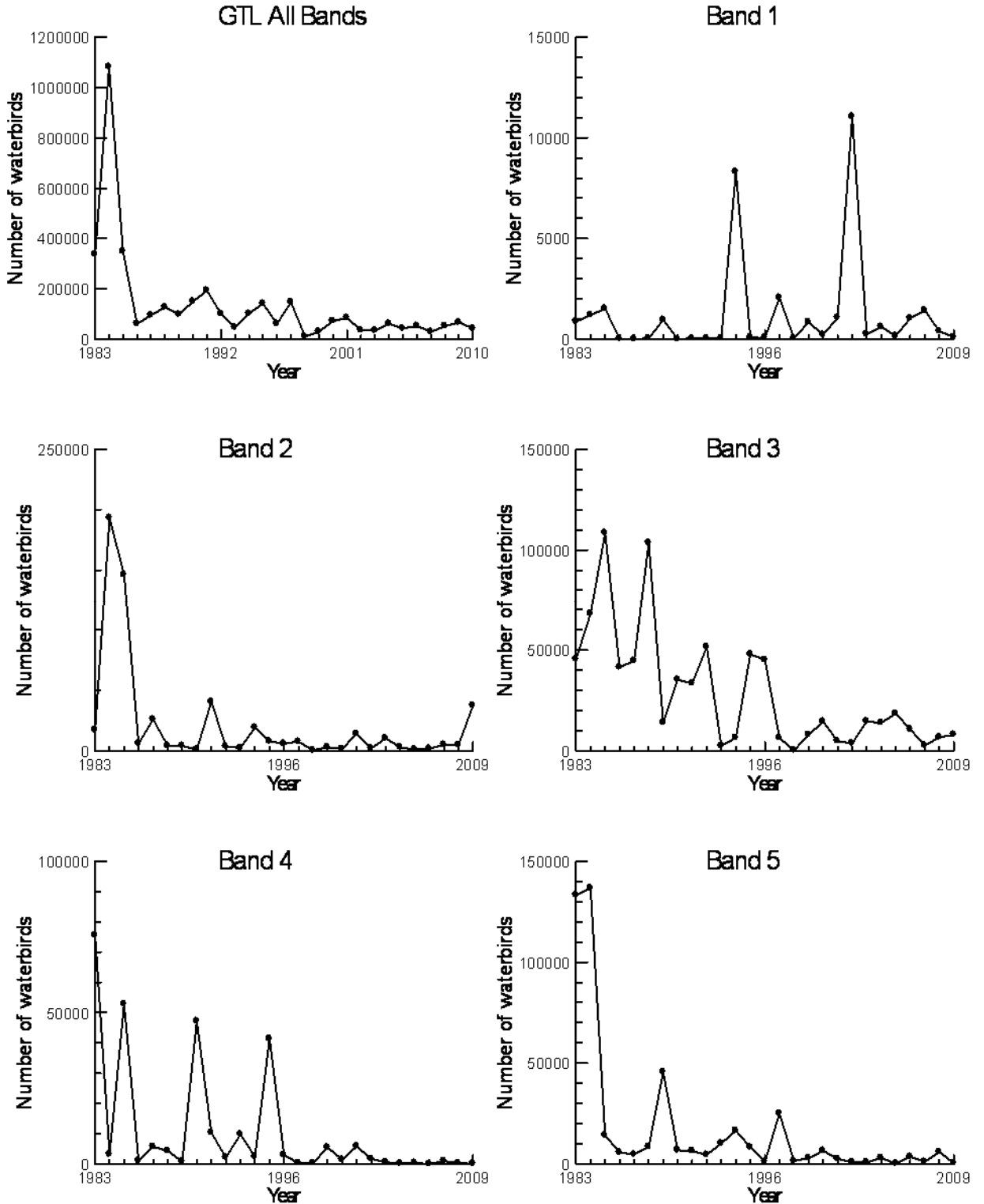
Scales vary on graphs

Figure 15. Chestnut teal 1-5



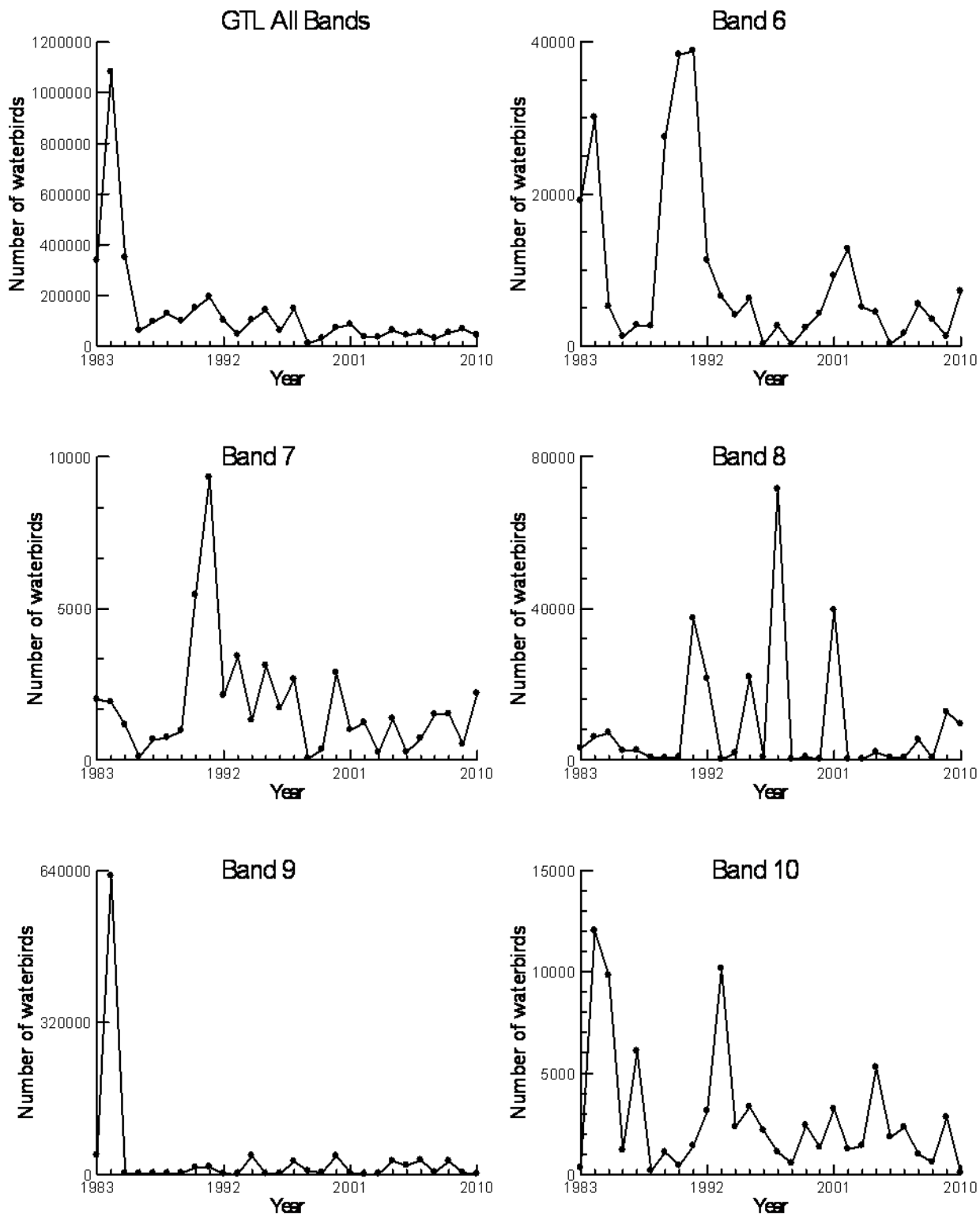
Scales vary on graphs

Figure 16. Grey teal 1-5



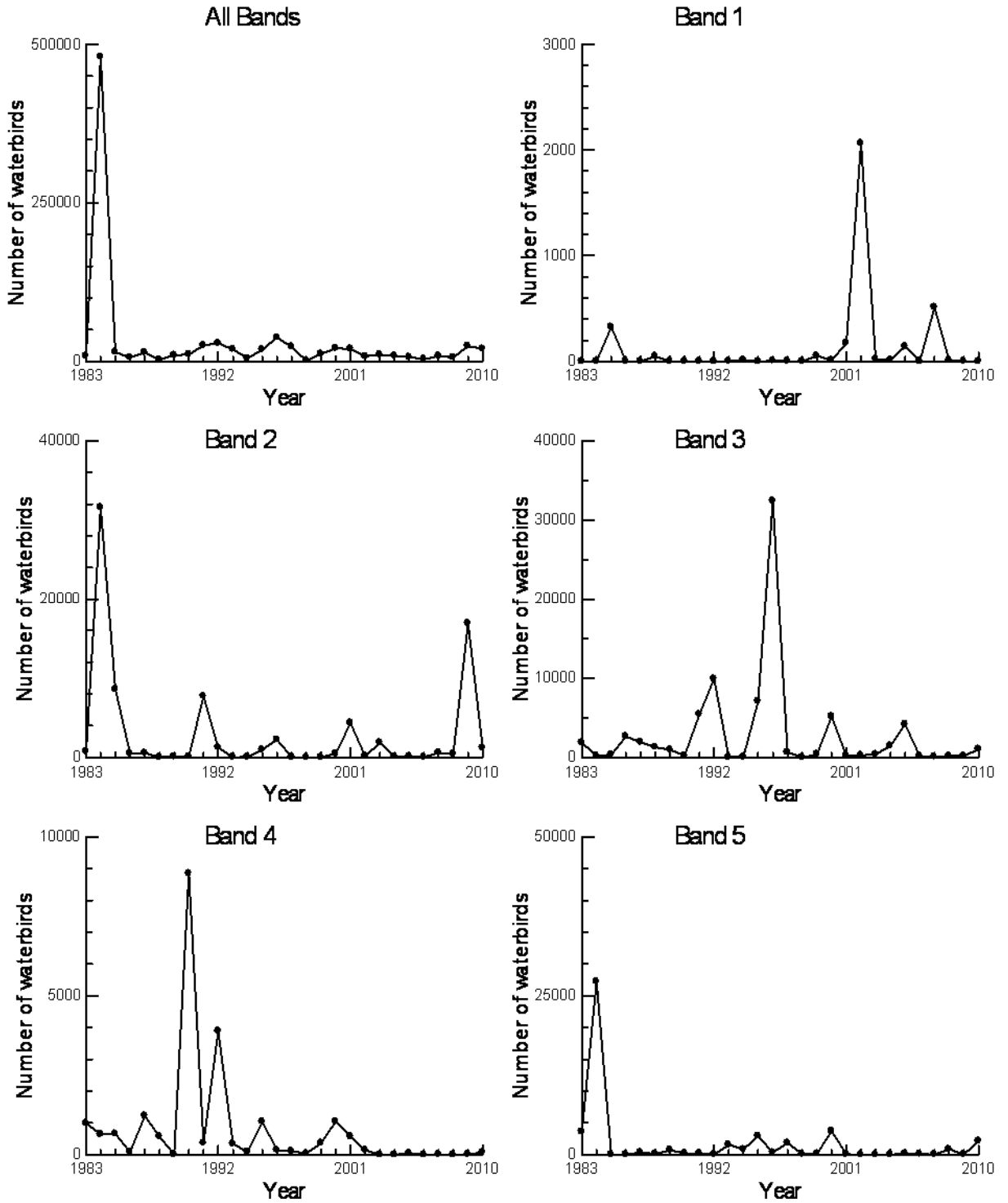
Scales vary on graphs

Figure 17. Grey teal 6-10



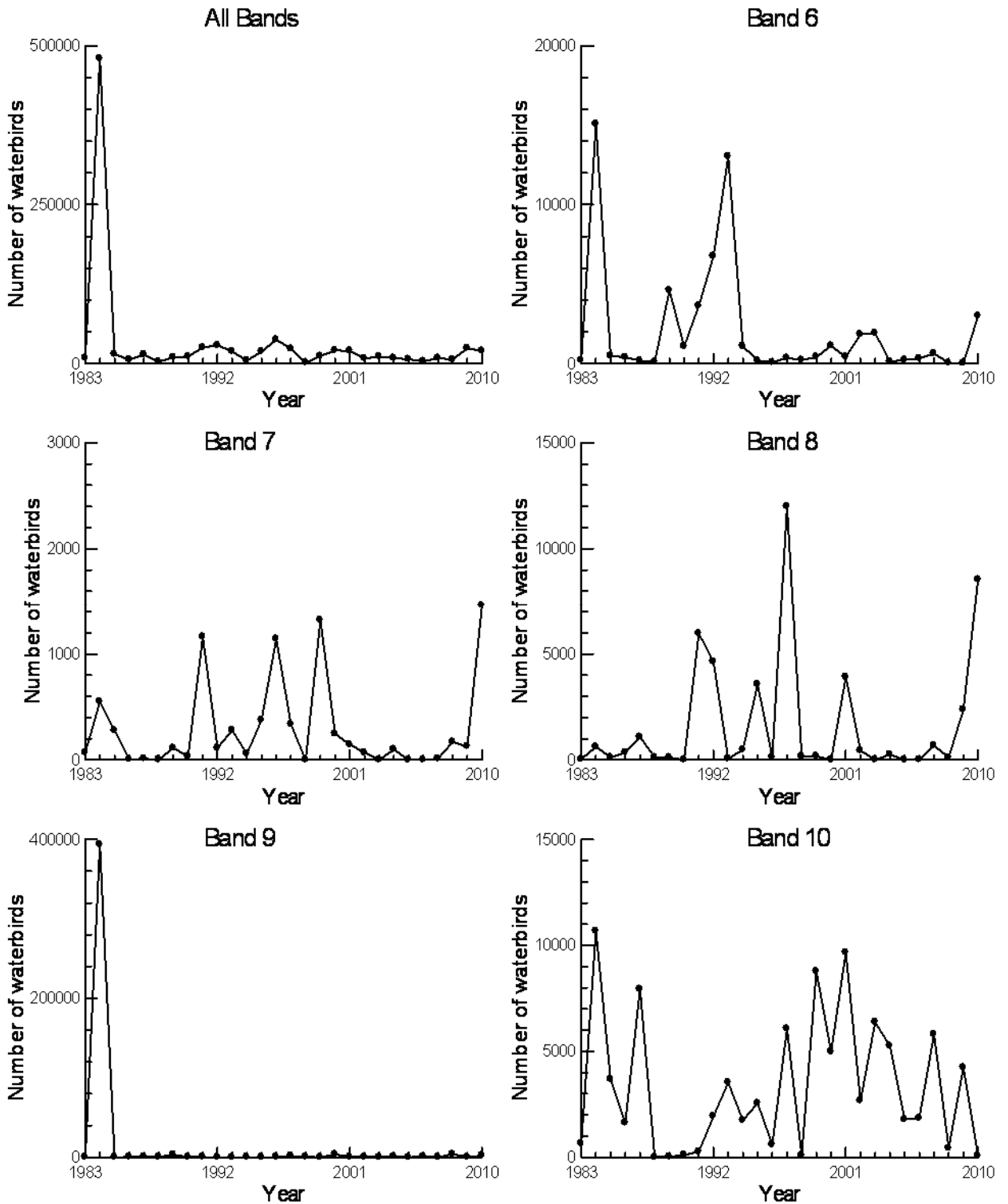
Scales vary on graphs

Figure 18. Hardhead 1-5



Scales vary on graphs

Figure 19. Hardhead 6-10



Scales vary on graphs

Figure 20. Freckled duck 1-5

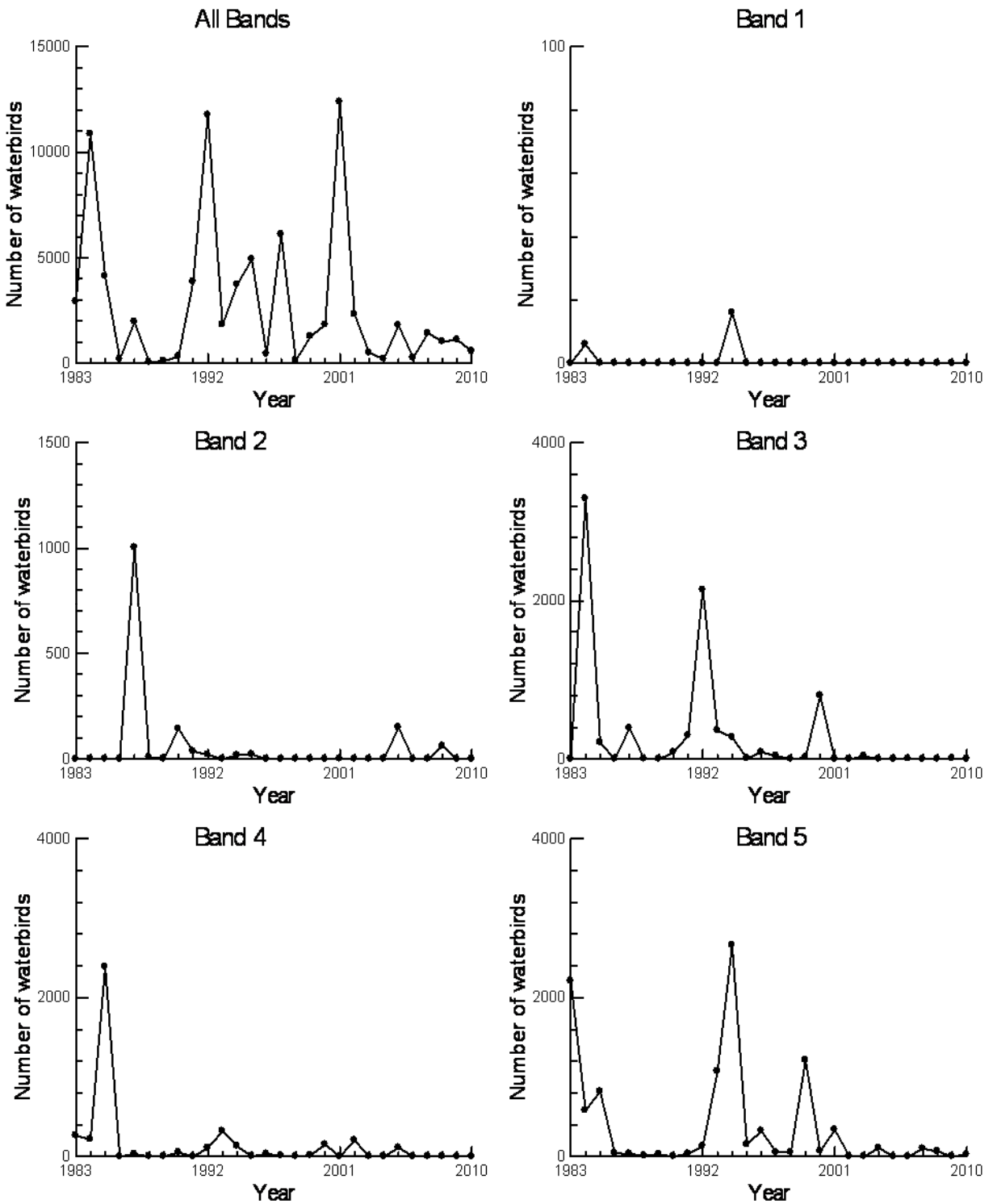
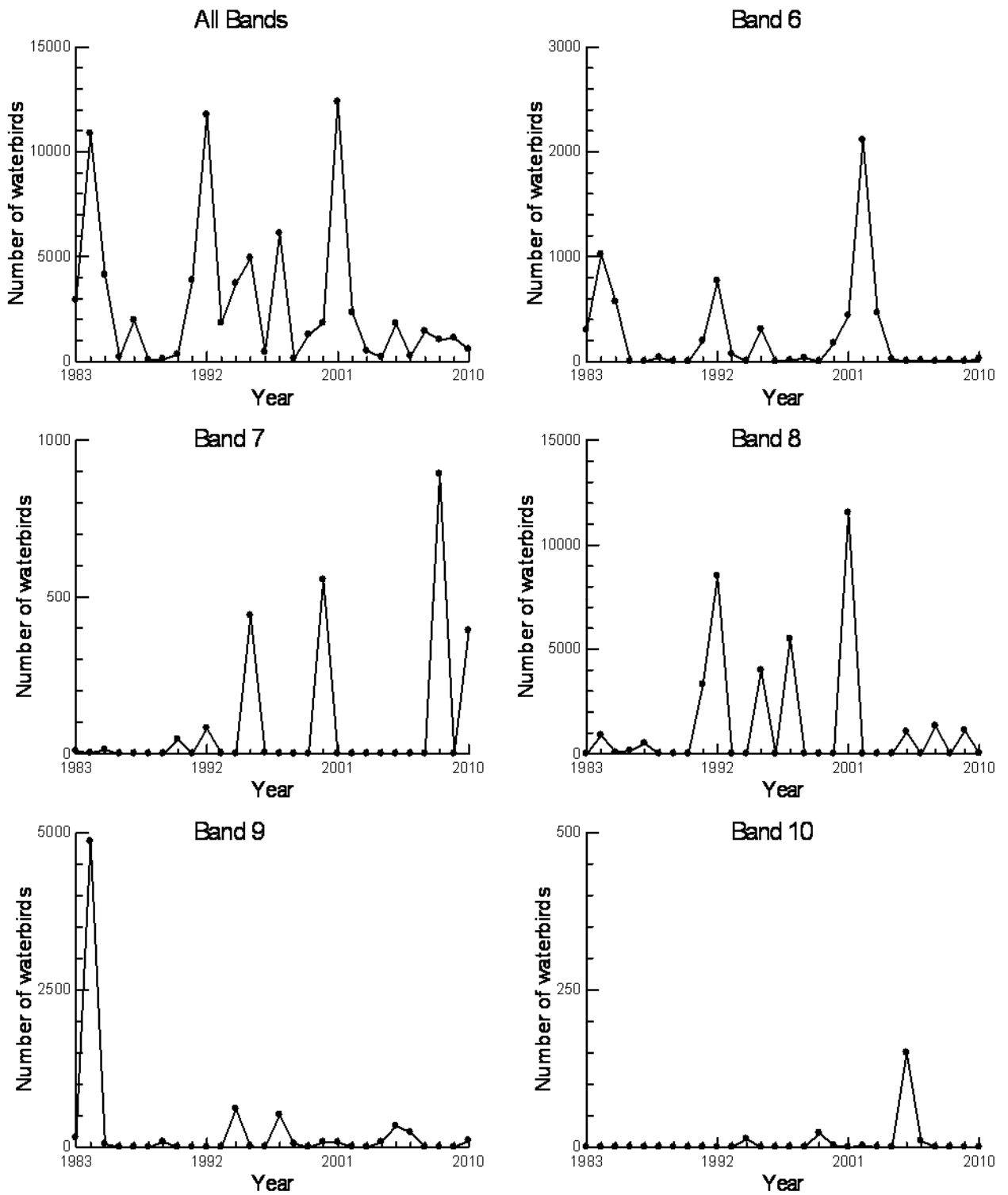


Figure 21. Freckled duck 6-10



Scales vary on graphs

Figure 22. Australian shelduck 1-5

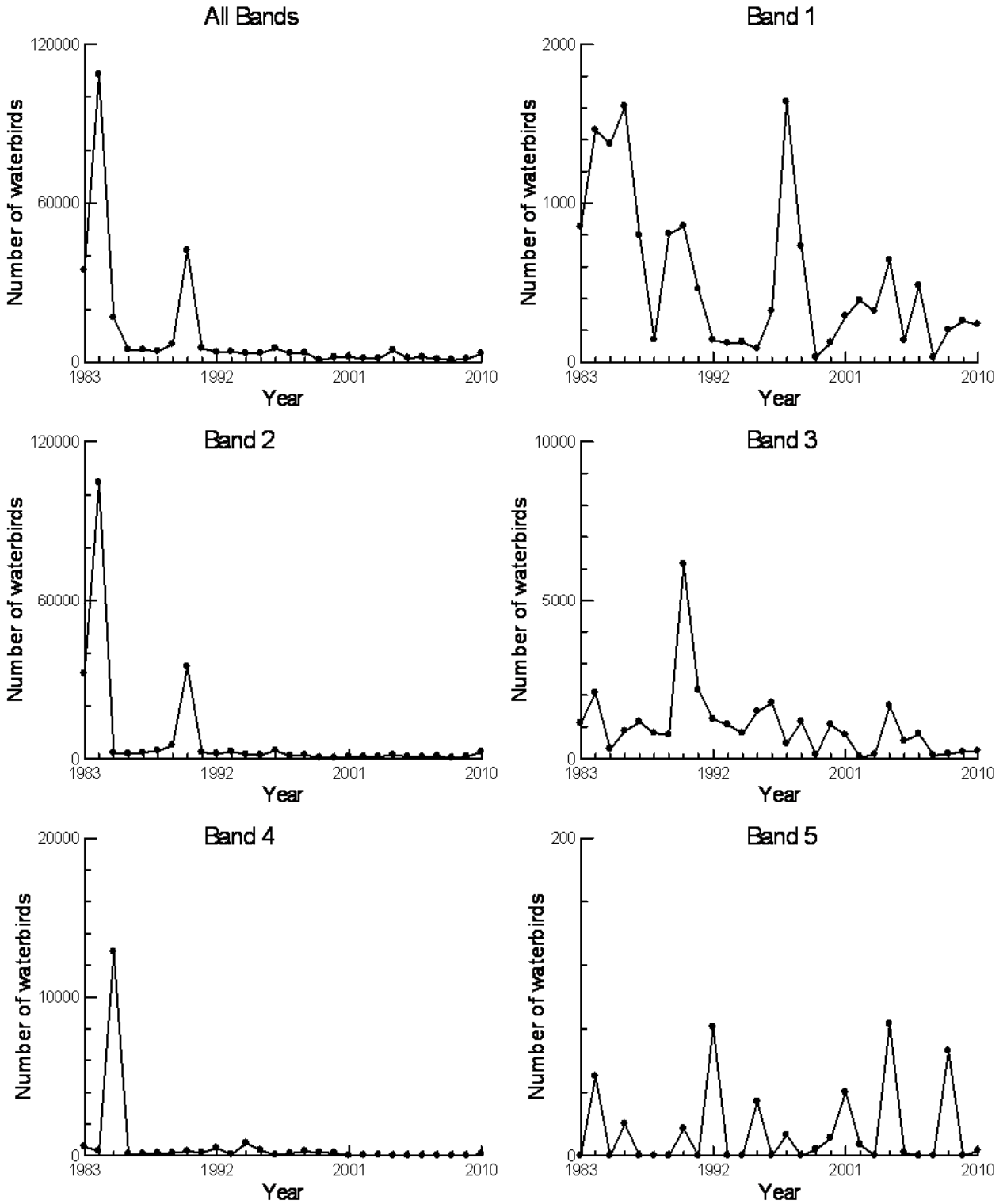
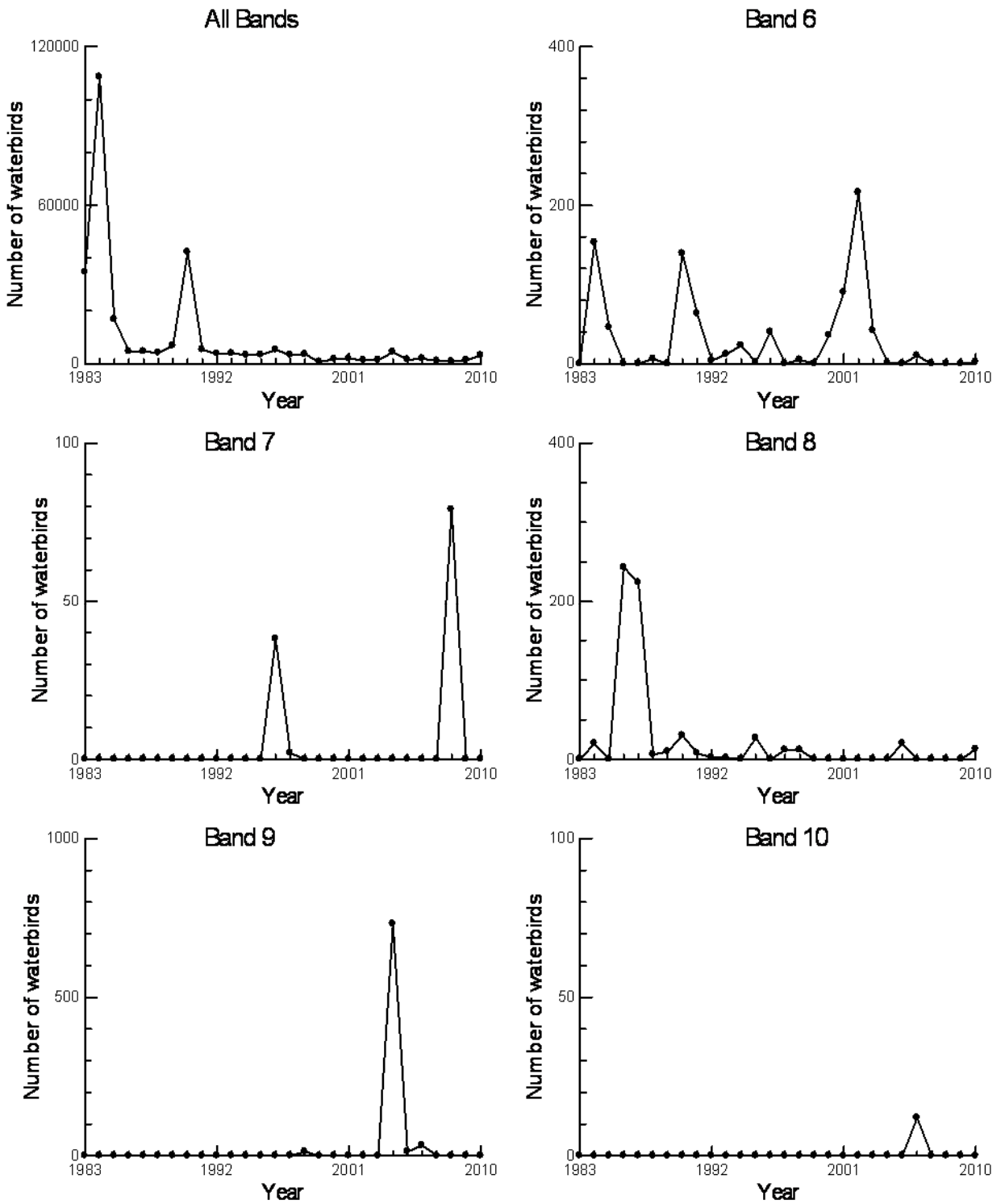


Figure 23. Australian shelduck 6-10



Scales vary on graphs

Figure 24. Pink-eared duck 1-5

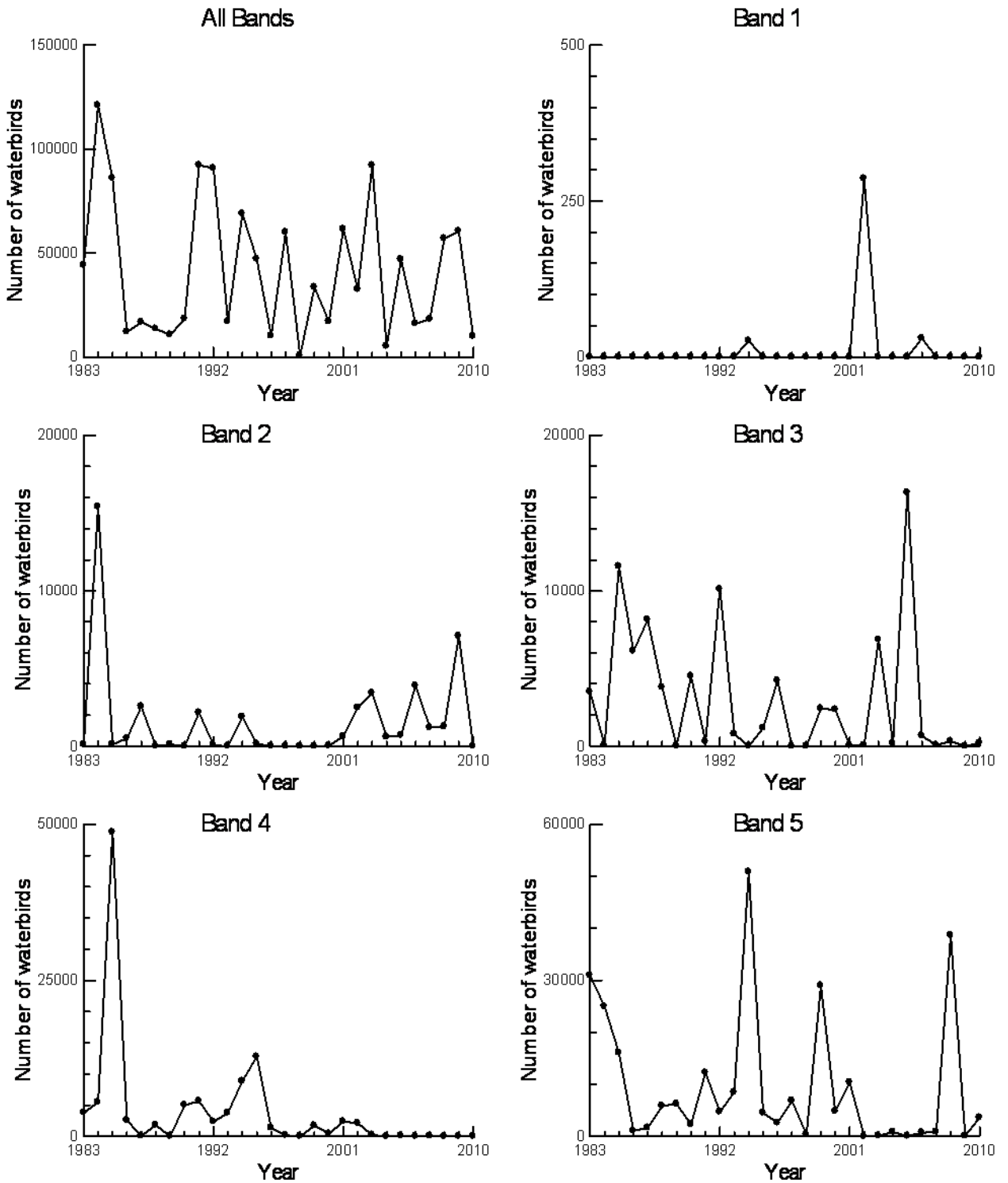
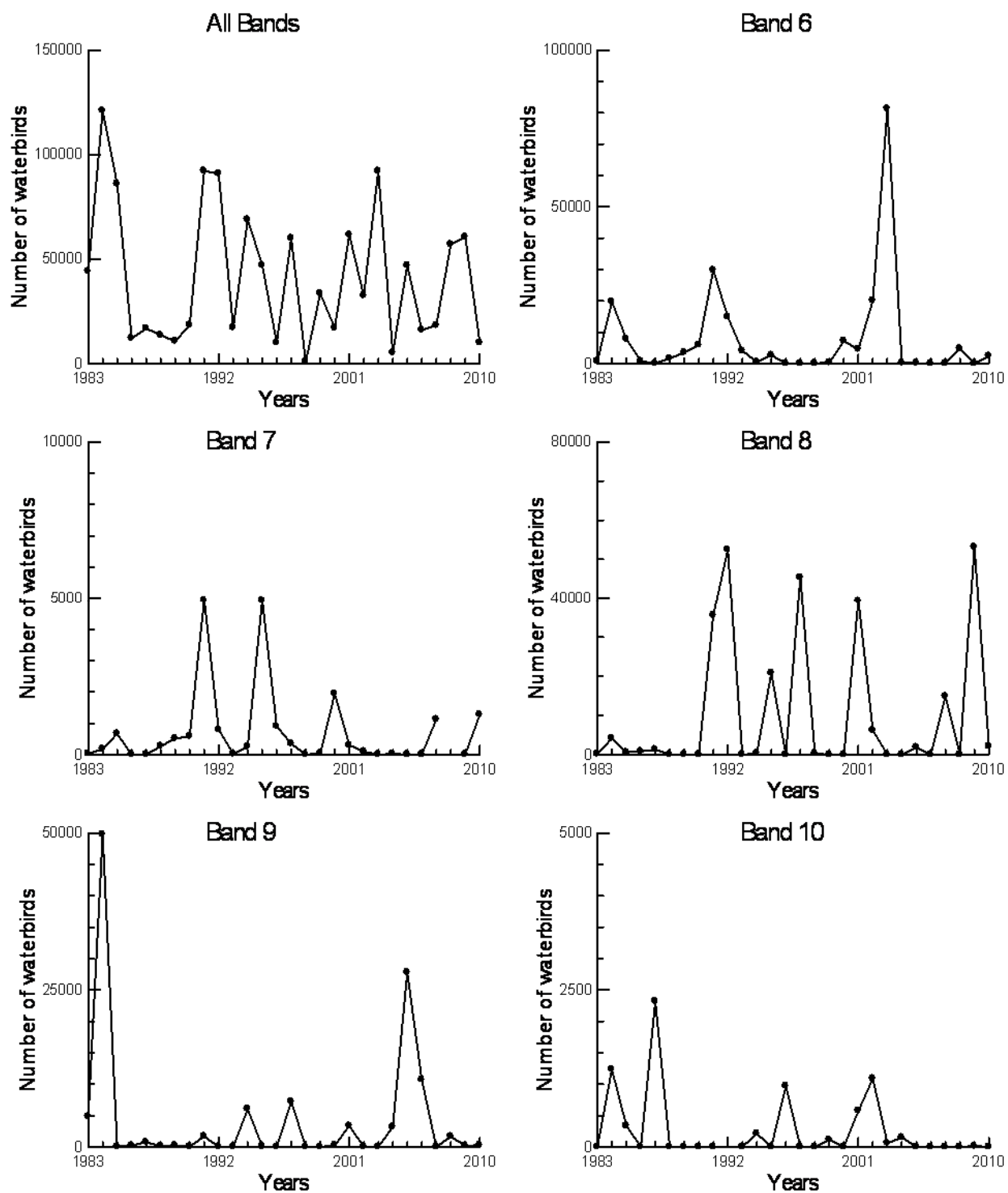
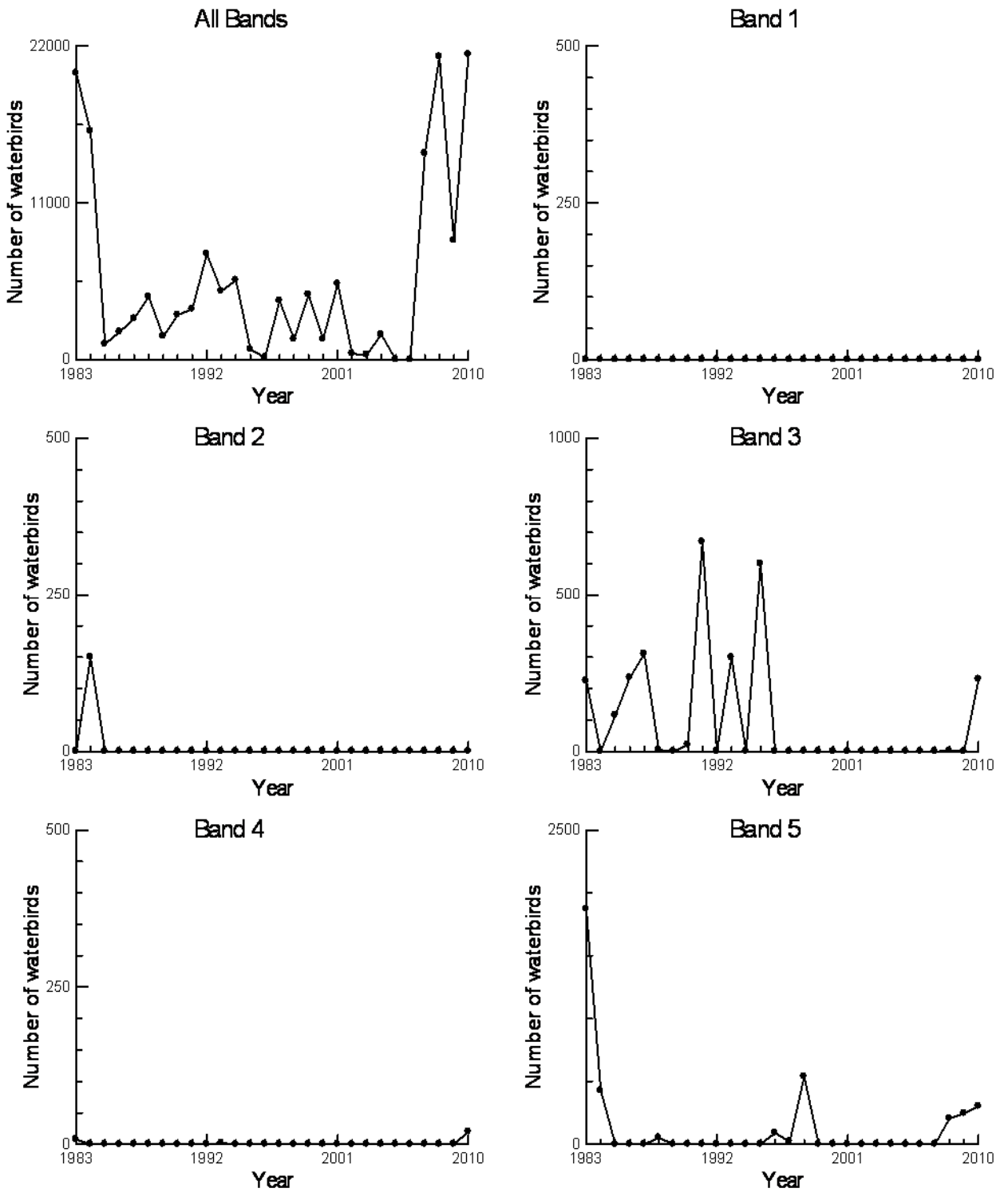


Figure 25. Pink-eared duck 6-10



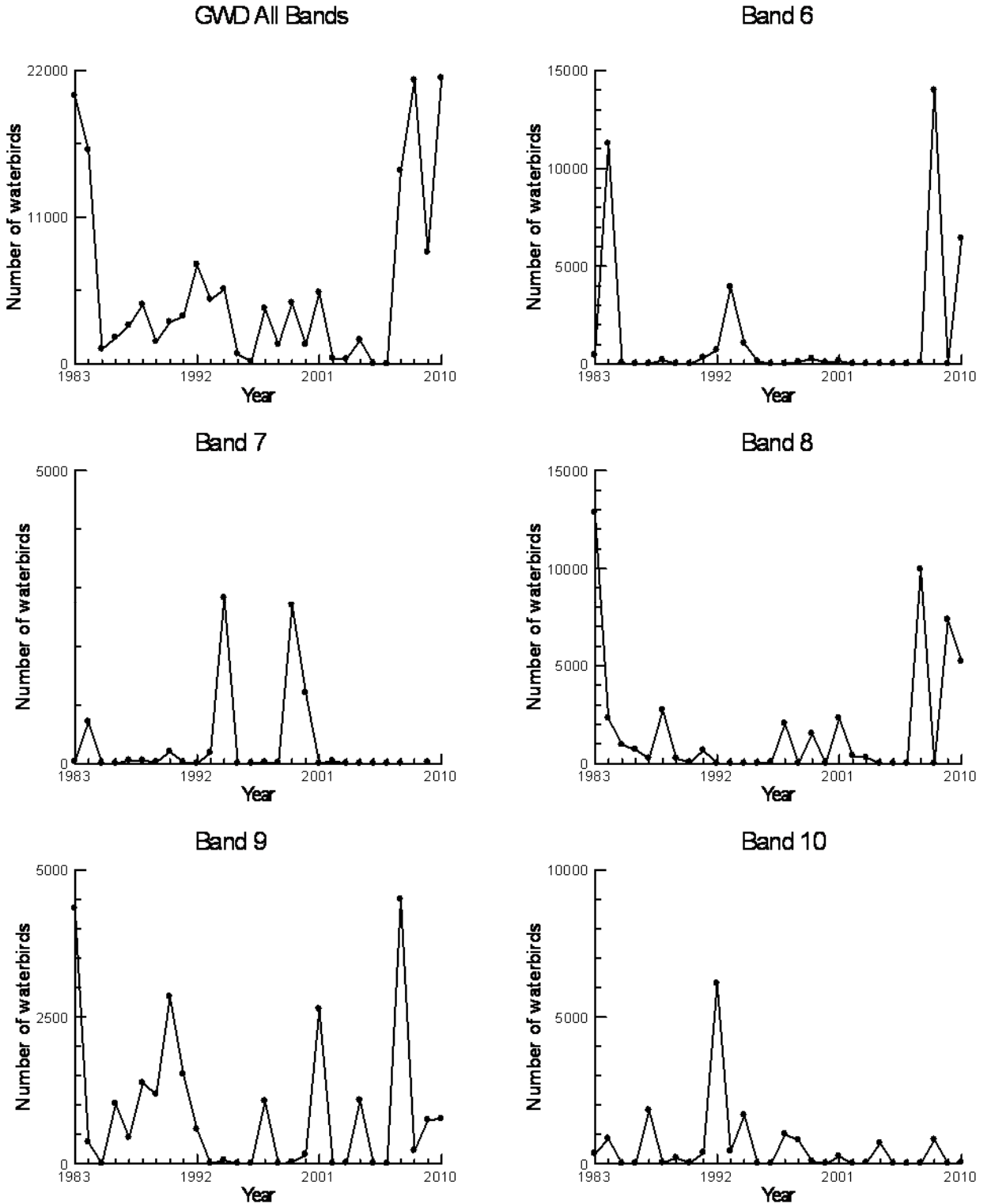
Scales vary on graphs

Figure 26. Plumed whistling-duck 1-5



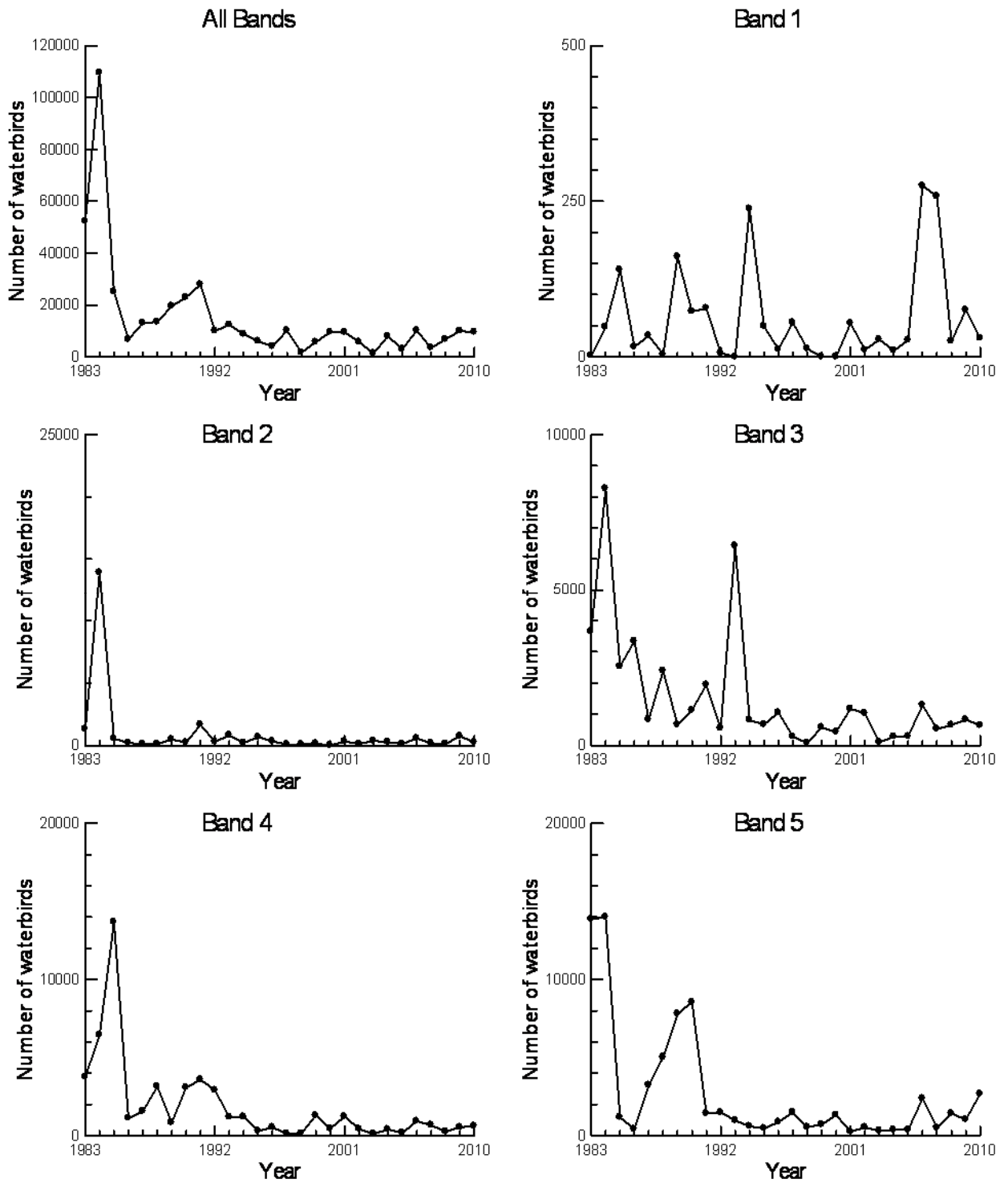
Scales vary on graphs

Figure 27. Plumed whistling-duck 6-10



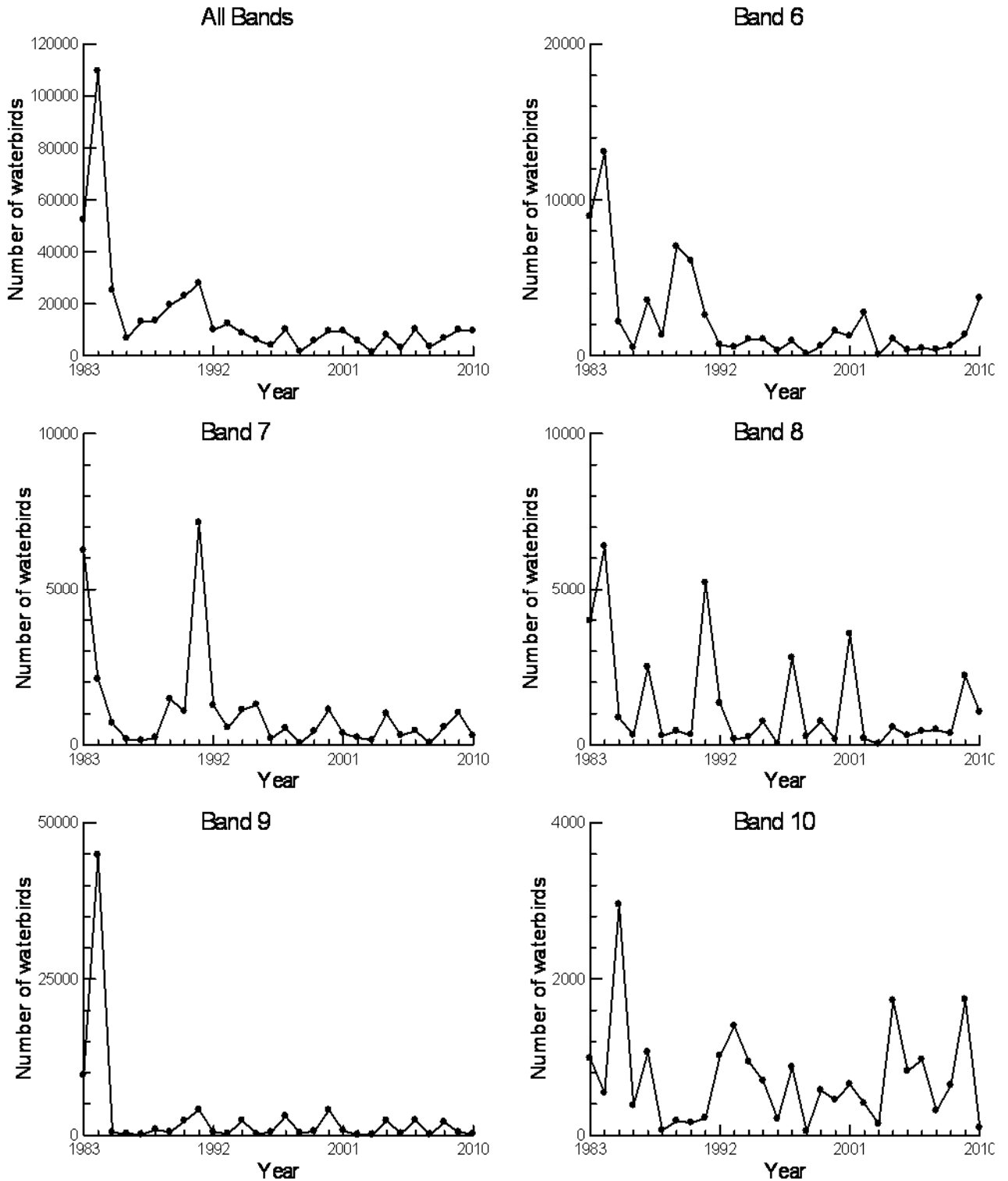
Scales vary on graphs

Figure 28. Australian wood duck 1-5



Scales vary on graphs

Figure 29. Australian wood duck 6-10



Scales vary on graphs