

FEATURE ARTICLES

ARE BARRED OWLS DISPLACING SPOTTED OWLS?

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Abstract. Since Barred Owls (*Strix varia*) expanded their range into the Pacific Northwest, anecdotal evidence suggests that they may be displacing the federally threatened Northern Spotted Owl (*Strix occidentalis caurina*). Our objectives were to describe the current status of Barred Owls in Oregon and compare occupancy of Spotted Owls in historic Spotted Owl territories before and after Barred Owls were first detected in those territories. Between 1974 and 1998, we estimated that 706 different Barred Owl territories were confirmed in Oregon. In 1989–1998 an average of 60 new Barred Owl territories were located in Oregon each year. In Spotted Owl demographic study areas in Oregon and Washington, Barred Owl detections increased at Spotted Owl territories from 1987–1999. Occupancy of Spotted Owl territories declined after Barred Owls were detected within 0.80 km of the territory center. When Barred Owls were detected 0.81–2.40 km from Spotted Owl territory centers, occupancy of Spotted Owls was only marginally less than at territories without Barred Owls. This suggests that the frequency and intensity of interactions between the two species is negatively associated with distance between them. Our results suggest that land managers and regulatory agencies should regard Barred Owls as a threat to Spotted Owls, particularly if Barred Owls continue to increase in number as they have during the past 25 years.

Key words: Barred Owl, competition, distribution, Northern Spotted Owl, occupancy, *Strix occidentalis caurina*, *Strix varia*.