A METHOD FOR SURVEYING NOCTURNAL FOREST OWLS IN ALASKA

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Road transects were utilized to survey nocturnal forest owls on the western Kenai Peninsula, Alaska traversing two forest types, mixed broadleaf/spruce (*Picea spp.*) and spruce, varying in levels of spruce mortality caused by a recent spruce bark beetle (*Dendroctonus rufipennis*) outbreak, and through stands subsequently salvage-logged. We conducted surveys during March and April, 1998 and 1999 encompassing the primary breeding seasons of Great Horned (*Bubo virginianus*), Great Gray (*Strix nebulosa*), Boreal (*Aegolius funereus*), and Northern Saw-whet (*Aegolius acadicus*) owls. Road transects consisted of 10 stops, spaced 805 m (0.5 miles) apart. Each stop was surveyed twice during an evening with an 8-minute listening period per visit. Surveys began at local sunset and took on average 4 to 5.5 hours to complete. Direction and estimated distance were recorded for each detection. Great Horned Owls were actively hooting by late February, while Boreal Owls did not begin singing until mid-March and Saw-whets until April. Only 3 Great Gray Owls were recorded during the two years of the study, in April 1999. Great Horned Owls began hooting at sunset, while Boreal and Saw-whet owls did not begin singing until later in the evening when Great Horned Owl singing activity had diminished. Owl activity and ability of the observer to detect them were related to weather as well as ambient noise conditions. An observation period of five minutes detected only 83% of individuals at a stop, and accuracy in estimating distance from a single point was poor.

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