The Condor
Volume 104, No. 2
May 2002
Abstracts

FEATURE ARTICLES

BREEDING SUCCESS IN THE WESTERN GULL × GLAUCOUS-WINGED GULL COMPLEX: THE INFLUENCE OF HABITAT AND NEST-SITE CHARACTERISTICS

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Manuscript received 18 January 2001; accepted 22 January 2002.
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Abstract. The nesting ecology of breeding pairs of the Western Gull × Glaucous-winged Gull (*Larus occidentalis* × *glaucescens*) hybrid complex was investigated at two locations in coastal Washington. In Grays Harbor, breeding performance (clutch size, hatching and fledging success) was highest in vegetated habitat where nests were most dense and where natural screens blocked the nearest neighbor. Egg loss, presumably from gull predators, was common except in areas of dense vegetation. At Tatoosh Island, egg loss was rare, and breeding performance was similar in vegetated and rock habitats. To test if physical structure around open-area nests influenced egg loss in Grays Harbor, predator-exclusion fences were erected around nests on a sandbar island lacking vegetation. Excluding predators reduced egg loss and increased hatching success relative to nests with adjacent natural screens (driftwood logs >30 cm tall) or nests lacking natural screens. Pairs that nest in habitats with adequate habitat structure appear to benefit in terms of lower egg loss and higher nesting success, especially in Grays Harbor. Increasing structure around individual nests may increase breeding success of gulls or other seabirds that experience extensive nest predation.

Key words: *Breeding success, egg loss, Glaucous-winged Gull, habitat,* Larus glaucescens, L. occidentalis, *Western Gull.*