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Abstracts

SHORT COMMUNICATIONS

INFLUENCE OF BILL SHAPE ON ECTOPARASITE LOAD IN WESTERN SCRUB-JAYS

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Abstract. Populations of the Western Scrub-Jay (*Aphelocoma californica*) have bills specialized for feeding in their respective habitats. Populations in oak habitat have hooked bills, whereas those in pinyon habitat have pointed bills with a reduced maxillary overhang. Work on other bird species shows that the bill overhang is essential for efficient preening to control ectoparasites. Given the importance of this overhang, we predicted that louse-infested jays with pointed bills would have higher louse loads than those with hooked bills. We compared the number of lice on 65 pointed-billed (4 infested) and 105 hooked-billed (17 infested) birds. Despite their lower incidence of louse infestation, pointed-billed birds had significantly more lice than hooked-billed birds, supporting our prediction. While pointed bills enhance feeding in pinyon habitat, our results suggest that they may incur a cost of reduced preening efficiency. Evolution of bill shape has traditionally been interpreted mainly in terms of foraging. Our results suggest that selection for efficient preening may also play an important role.

Key words: *Aphelocoma californica*, *bill shape*, *ectoparasite*, *lice*, *preening*, *Western Scrub-Jay*.