

SHORT COMMUNICATIONS

ARE NESTLINGS THE CUE FOR REDUCTION OF THE ADRENOCORTICAL RESPONSE TO STRESS IN MALE YELLOW WARBLERS BREEDING AT HIGH LATITUDE?

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Abstract. Acute corticosterone secretion helps individuals survive perturbation, particularly when faced with unpredictable conditions. However, elevated corticosterone is often incompatible with reproduction. Male Yellow Warblers (*Dendroica petechia*) breeding at high latitude avoid this conflict by exhibiting a reduced adrenocortical response while provisioning nestlings. To determine if this reduction is cued by nestlings, in June 2000 we switched clutches between nest pairs to manipulate hatching date. We sampled males with early-hatching clutches for the adrenocortical response 24 hr after nestlings hatched, but 24 hr prior to the premanipulated (original) hatching date. Similarly, we sampled males with late-hatching clutches 24 hr after the original hatching date, but prior to nestlings hatching. Males with early-hatching clutches ($n = 6$) showed no reduced adrenocortical response, while males with late-hatching clutches ($n = 6$) appeared to show a reduced response even without nestlings, suggesting that nestlings do not cue the reduction. An endogenous clock, day-counting mechanism, or hormonal changes may be associated with the reduced adrenocortical response.

Key words: adrenocortical response, *Dendroica petechia*, reduction mechanism, stress response, Yellow Warbler.