

SHORT COMMUNICATIONS

CORTICOSTERONE LEVELS IN RELATION TO CHANGE OF MATE IN BLACK-LEGGED KITTIWAKES

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Abstract. In birds, changing mates generally results in decreased breeding success. Although costs and benefits of pair break-up have been well studied, endocrine mechanisms associated with mate change are poorly known. We measured baseline and stress-induced corticosterone levels in relation to mate change in Black-legged Kittiwakes (*Rissa tridactyla*). Baseline corticosterone levels were higher in kittiwakes breeding with a new mate than in kittiwakes that did not change mate. Stress-induced corticosterone levels were not influenced by change of mate. Elevated baseline corticosterone levels in birds breeding with a new mate could result from the social stress associated with pair break-up or mirror a higher energetic demand resulting from a lack of coordination between new pair members. Our results emphasize the usefulness of corticosterone levels in elucidating the effects of mate change on the energetic demands of reproduction in free-living birds.

Key words: Black-legged Kittiwake, corticosterone, mate change, *Rissa tridactyla*, seabird.