

WITHIN-SEASON DIVORCE IN COMMON TERNS – INDUCED BY PREDATOR DISTURBANCE?

Ludwig Sonja C. and Peter H. Becker

Institute of Avian Research 'Vogelwarte Helgoland', An der Vogelwarte 21,
26386 Wilhelmshaven, Germany
E-mail: sonja.ludwig@ifv.terramare.de

In most seabird species divorce and mate change between breeding seasons occurs more or less frequently, but within-season mate change is rarely observed (Johnston and Ryder, 1987). In the Laridae, it was previously described just two times for probably widowed birds (Massey and Fancher, 1989; Ludwigs, 2005). Here, we report four cases of within-season mate change, following divorce in at least two cases, in renesting common terns *Sterna hirundo* during a year of heavy predation (2005) by a long-eared owl *Asio otus*. However, no intra-seasonal divorce was observed in two previous years with high predation pressure but much lower breeding density (1993 and 1998). Besides the obvious direct impact, nocturnal predators have also severe indirect effects, causing the death of young chicks by adults abandoning the colony at night-time (exposure to cold and wet weather) and lower hatching success by adults deserting their clutches (Wendeln and Becker, 1999). Accordingly, we found more deserted clutches, lower hatching success as well as more disappeared chicks in the affected year compared to other years. Predation also affected within-season nest-site fidelity: in years with high predation pressure 31.9% of renesting birds changed the subcolony for their replacement clutch, whereas in other years without predation it was only 12.3%.

References

- Johnston V.H. and J.P. Ryder. 1987. Divorce in larids: a review. *Col Waterbirds* 10:16-26.
- Ludwigs J.-D. 2005. Common tern *Sterna hirundo* mating with two females successively in one season. *Atlantic Seabirds* 7: 90-92.
- Massey B.W. and J.M. Fancher. 1989. Renesting by California least terns. *J. Field Ornithol.* 60:350-357.
- Wendeln H. and P.H. Becker. 1999. Does disturbance by nocturnal predators affect body mass of adult common terns? *Waterbirds* 22:401-410.