

Tracking red-throated divers through the annual cycle using satellite telemetry

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Several red-throated divers wintering at the Lithuanian coast have been implanted with satellite transmitters in 2012 and 2013. The transmitter deployment technique used in this study is already established and successfully applied to track diving birds in North America for many years. In Lithuania we achieved long-term tracking of 6 red-throated divers. Wintering birds differed in their mobility, some of them were relatively sessile and others used a series of distinct wintering sites. Tracked divers occurred in marine waters of nearly all countries surrounding the Baltic Sea, and one individual also flew to the North Sea. During spring migration birds moved in a stepping pattern, stopping over at suitable locations for several days. Five individuals were tracked into the breeding season and all of them migrated thousands of kilometers to the high arctic of Russia, the Kara Sea basin.

Despite small sample size, this telemetry study offers the first close insight into thus far unknown aspects of diver ecology. We gain new knowledge about movement patterns and habitat preferences through birds' annual cycle, as well as information important for species conservation, such as probabilities of bird occurrence in waters of national jurisdictions and use of marine protected areas. No other study method offers matching breadth and detail of data about the long distance migration.

This telemetry study is part of LIFE+ project DENOFLIT designed for protecting marine environment in Lithuania.