P1-D-65 Red-throated Diver (Gavia stellata) habitat use & mobility patterns – revealed by satellite tracking

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www.divertracking.com

Background
December
• Red-throated Diver is a protected migratory species wintering in large numbers in the North Sea
• Divers are sensitive to anthropogenic disturbance & offshore windfarm development is increasing
• To evaluate impacts of offshore windfarms on divers information on habitat use and movement patterns during wintering season, migration patterns, breeding area and site fidelity is essential.

➢ Data present the first months of satellite tracking from wintering to potential breeding sites (3 April 2015 - 20 June 2015)

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Methods
• Within 3 years (2015-2018), 45 divers will be tracked during their annual cycle using satellite transmitters
• 16 Red-throated Divers (13♀ 3♂) were tagged in 2015 (10 in March; 6 in April)
• Capture by night-lighting technique
• Captured in wintering grounds of the German North Sea EEZ
• Birds were equipped with implantable PTTs
• 11 birds were succesfully tracked from wintering sites to breeding grounds
• Genetic gender determination

Results - Migration patterns
Departure from the North Sea
• All birds 24.03.2015-19.06.2015
• Most birds 13.04.2015-18.05.2015
➢ Birds caught in April left later than birds caught in March
➢ 7 of 11 birds spent approx. 39 ± 10 days in a stop-over area (6 in the Baltic Sea, 1 in Norway)
➢ 8 Birds left between 03.06.-10.06.2015 – and arrived at potential breeding sites about 7 ± 15 days later
➢ Two birds migrated straight to the breeding areas in Norway
➢ 2 breeding sites in Greenland – different migration routes

Iceland (staging time 6 days)
Scotland (staging time 4 days)

Results - Wintering distribution and exemplary habitat use of 3 individuals for 28 days indicate large wintering home ranges

95 % Kernel home range (KDE)
6522 km²
7550 km²
7529 km²

Results

6 potential breeding sites in Siberian lowlands (Yamal & Taimyr Peninsula)
2 potential breeding sites in Greenland
2 potential breeding sites in Norway
1 non-breeding

funded by
German Federal Ministry for Economic Affairs and Energy represented by PTJ
Funding ID 0325747A/B