

## Description of Additional Supplementary Files

**File name:** Supplementary Data 1

**Description:** List of coordinates of collection points of *E. horridus* in the North and Baltic Sea between May and November 2022.

**File name:** Supplementary Data 2

**Description:** Dataset of the measured attachment forces, masses, safety factors and experimental settings.

**File name:** Supplementary Data 3

**Description:** Table with all publications and data used for the creation of Figure 5 based on literature for interlocking in insects.

**File name:** Supplementary Data 4

**Description:** R scripts used for statistical tests and graphs.

**File name:** Supplementary Data 5

**Description:** Table of parameters for the estimation of the drag force a single seal louse, *E. horridus*, is exposed on the surface of a swimming seal.

**File name:** Supplementary Video 1

**Description:** Exemplary video of a force measurement showing the detachment of *E. horridus* from seal fur.

**File name:** Supplementary Video 2

**Description:** Exemplary video showing the movement of *E. horridus* on seal fur and the clamping of claws on hairs.