# Sediment in Stomach Contents of Western Sandpipers and Dunlin Provide Evidence of Biofilm Feeding

[illegible] [1,2,*], [illegible] [3], [illegible] [3]

[1]

**Table 2. ANOVA results for the relative contribution of molluscs, annelids and arthropods to the invertebrate component of the diets of Western Sandpipers and Dunlin. Note that the total sample size for these analyses is 142, because 3 of the 145 stomach contents analyzed contained no animal components.**

| | | | | |
|---|---|---|---|---|
| : ( + 1) | | | | |
| | 1 | 2.51 | 129.66 | <0.0001 |
| | 1 | 0.19 | 10.07 | 0.002 |
| × | 1 | 0.15 | 7.93 | 0.006 |
| | 138 | 2.67 | | |
| : ( + 1) | | | | |
| | 1 | 0.20 | 9.06 | 0.003 |
| | 1 | 0.04 | 1.91 | 0.17 |
| × | 1 | 0.13 | 5.75 | 0.018 |
| | 138 | 3.06 | | |
| : ( + 1) | | | | |
| | 1 | 1.75 | 54.71 | <0.0001 |
| | 1 | 0.11 | 3.33 | 0.070 |
| | 139 | 4.44 | | |

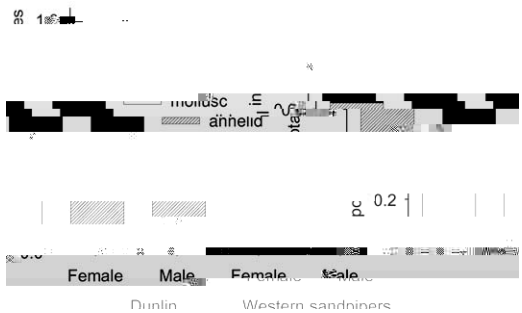


**Figure 2. Contribution of molluscs, annelids, arthropods and 'others' to the invertebrate component of Dunlin and Western Sandpiper diets. 'Others' includes foraminiferans, nematodes and fragments of unidentified invertebrates.**

( 0.40).

( $_{1, 141}$ = 158.55, 0.0001),
( $_{1, 141}$ = 0.06, = 0.80).

%

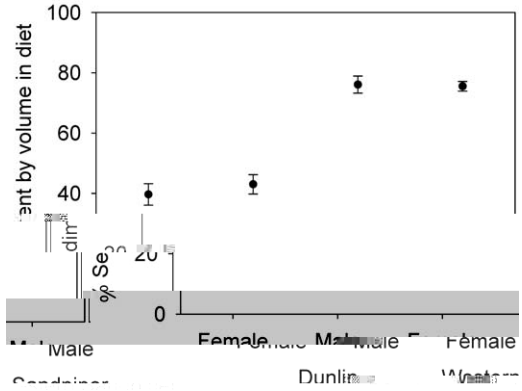


**Figure 3. Proportion contribution of sediment to the total food as a function of sex and species. Sediment was used as an index of biofilm feeding (see Methods). Val-**

9:1
2:1
( 1966;
1966; 1977; *et al.* 1989;
*et al.* 1990; 1996;
*et al.* 1999),
(1968),
23
70-80%
(1968)
(
1998).
%
(
1999;
2003).
*et al.* (2008)
45 59%
50%
75.7 1.43% ( 32-95)
. (2008)
( *et al.* 2005).
*et al.* (2005)
( ) (
2003).
( 1971;
2008),
( 2004).
( . 2); ,
( *et al.* 2000).
( 2005). (*Numenius arquata*),
( 1993).
%
( 2000),
( *et al.* 2000).

( 1966;
1968; *et al.* 1989; *et*
*al.* 1990; *et al.* 1999).

(<500 )

( *et al.*
2000)

%

3-60%
(
1951; *et al.* 1994; 7 6

. 1999. -
6: 71-86.
. 2005. -
(*Calidris mauri*) . -
. 2004.
(*Calidris mauri*)
82: 1035-1042.
. 1992.
*Tadorna tadorna* -
43: 139-
151.
. 2008.
*Calidris alpina alpina* -
85: 135-
139.
. 2005. -
55:
235-243.
. 1971.
42: 297-298.
. 1981. -
12: 13-17.
. 1951.
53: 43-45.
. 1996. -
228: 45-60.
. 1989.
, *Calidris mauri*,
, *C. alpina*, 103:
372-379.
. 1996.
110: 419-444.
. 2008.
(*Calidris mauri*).
86: 601-609.
1990.
*Calidris maritima*
37: 187-194.
2000. -
(*Calidris mauri*):
137: 983-993.
. 1940.
( ).
9: 183-187.
. 1981.
32: 99-106.
. 2006. -
. 1999.
. 2002. -
80: 1918-
1929.