

# Summary Statistics

**File>Open>**Filename: **WA fish diets %vol**, and examine the factors sheet with **Edit>Factors**. The samples form 7 groups (identified in the labels by A to G) which are the different predator species, three of which, B: *Sillago schomburgkii* ( $n = 10$ ), E: *Sillago bassensis* ( $n = 14$ ), G: *Sillago vittata* ( $n = 16$ ), are from the same genus (congeneric) and thus of particular interest in terms of whether their diets are distinguishable (they occupy different niches in the 'dietary space'). First, calculate simple summary statistics for each sample with **Analyse>Summary Stats>For•Samples**. Not all summary options (Min, Max, Average, Sum, Standard deviation, Variance, Range, Non zero) may be meaningful in particular contexts: one that is informative here is  $\checkmark$  Sum. This shows that three samples (A9, B3 and B4) have low total gut fullness ( $<10\%$ ), even though from a pool of 5 guts, and it is justifiable to look at the effect of (temporarily) dropping these samples from the analysis on the grounds that they contain little information on dietary composition (and could thus have large variability in similarity with other samples, see Section 5 on zero-adjusted Bray-Curtis).

The screenshot shows the 'Summary Stats' dialog box with 'Samples' selected. The background displays a data table with dietary categories and sample groups A1 through B5.

**Summary Stats Dialog Box:**

- For:** ☒ Variables, ☐ Samples
- Options:**
  - ☐ Minimum
  - ☐ Maximum
  - ☐ Average
  - ☒ Sum
  - ☐ Standard deviation
  - ☐ Variance
  - ☐ Range
  - ☒ Non zero

**Data Table (Diets of 7 nearshore):**

Dietary category	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5
Nematoda	0	0	0	0	0	0.14	0	0	0.5	0	2.26	0	0.2	0	0
Oligochaeta	0	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0
Combined polych	0	0	0	1.54	0	0	0	0	0	0	15	3	0	15.9	0
Calanoid	56.56	59	50.78	24.8	30.16	25.16	25.4	24.56	0	17.68	0	0	0	0	0
Harpactacoid	0.24	0.1	1.42	0.8	0.22	0.1	2.92	1.4	0	1.3	6.12	0	0	0	0

**Summary Table (Variables):**

Variable	Sum	Non zero
A6	60.8	7
A7	28.84	4
A8	36.3	7
A9	7.4	4
A10	41.48	8
A11	98	3
A12	94	4
A13	28.6	8
A14	31.62	10
A15	36.9	8
A16	34.8	11
B1	63.28	3
B2	47.58	5
B3	6	3
B4	2.7	2
B5	18.6	4

Revision #2

Created 19 May 2024 23:47:45 by Arden

Updated 14 January 2025 22:18:54 by Abby Miller