

# Relatedness supplied as resemblances

Note the alternative means of supplying the variable information, to these dissimilarity measures and the biodiversity indices of Section 15, which is now available in PRIMER 7. In the Variable Relationship dialog box, Type•Resemblance>**Details** now requires specification of a numeric among-species resemblance matrix which could be constructed from genetic, functional etc data, but is illustrated here by first creating a species distance matrix through the Linnean tree with **Analyse>Similarity** when the aggregation file **Groundfish taxonomy** is the active window. This takes you to a similar Taxonomy dialog box as above and creates sheet **Resem2** of among-species distances 20, 40, 60, 80, 100. The Linnean tree could be viewed by **Analyse>Cluster** (next section) on **Resem2**, or in alternative format by **Tools>Tree** on **Groundfish taxonomy**. When **Resem2** is supplied as the Variable resemblance worksheet from **Details**, the same  $\gamma^+$  matrix results, naturally.

**Groundfish density**

	S79	S80	S81	S82
Torpedo nobiliana	0	0	0	0
Squalus acanthias	0	0	0	2
Scyliorhinus canicu	3.666	1.333	2.166	24.62
Scyliorhinus stellar	0	0	0	0

**Groundfish taxonomy**

	Genus	Family	Order	Class
Torpedo nobiliana	Torpedo	Torpedinidae	TORPEDII	
Squalus acanthias	Squalus	Squalidae	SQUALIFI	
Scyliorhinus canicu	Scyliorhinu	Scyliorhinid	CARCHAR	

**Variable Relationship**

Type

☐ Taxonomy

☒ Resemblance

**Details...**

**Resemblance (Data)**

Variable resemblance worksheet:

Resem2

**Taxonomy (Master)**

Variable info. worksheet (taxonomic)

Groundfish taxonomy

Current level of sample data:

Species

Use links

**Variable simil...**

Master taxonomy

Variable info. worksheet: Grou

Current aggregation level for d

Weights are determined from u

Taxon	Branch weight
Species	1
Genus	1
Family	1
Order	1
Class	1

**Resem2**

**Taxonomy for NW European shelf groundfish**

**Dissimilarity (0 to 100)**

	Agon	Angu	Arno	Arno
Agonus cataphractu				
Anguilla anguilla	80			
Arnoglossus imperi	80	80		
Arnoglossus latema	80	80	20	
Aspitrigla cuculus	60	80	80	80

**Resem3**

**Groundfish NW European shelf**

**Dissimilarity (0 to 100)**

	S1	S2	S3	S4	S5	S6
S1						
S2	4.1026					
S3	11.515	13.529				
S4	7.3684	12.308	11.515			
S5	6.6667	6.4865	9.6774	8.8889		
S6	7.4286	7.2222	6	7.4286	3.0303	
S7	9.2683	8.0952	13.333	8.2927	10.769	9.4737

**Tools**

**Tree...**

**Check...**

**Duplicate**

**Stop Tasks**

**Options...**

**Tree**

**Taxonomy for NW European shelf gro**

- CHONDRICHTHYES
  - RAJIFORMES
    - Rajidae
      - Raja
        - Raja radiata
        - Raja naevus
        - Raja undulata
        - Raja clavata
        - Raja microcellata
        - Raja brachyura
        - Raja montagui
  - TORPEDINIFORMES
  - SQUALIFORMES
  - CARCHARINIFORMES
  - OSTEICHTHYES

