

Taxonomic coverage of the harmonized trait datasets

Regarding the taxonomic coverage, the New Zealand dataset has, as expected, the smallest taxon pool (478 taxa, Table 1). By contrast, the largest taxon pool is spanned by the European trait dataset with 4601 taxa followed by the North American trait dataset that contained trait information on 3753 taxa. The Australian dataset contains 1402 taxa. The European, New Zealand, and North American datasets have most taxa on the species-level while the Australian dataset has a similar number of taxa on species and genus-level.

Table 1: Number of taxa per harmonized dataset and per taxonomic level. Numbers in parenthesis show rounded relative frequencies in percentage.

Database	Nr. of taxa	Species	Genus	Family	Nr. aquatic insects
EU	4601	3739 (81)	704 (15)	158 (3)	3942 (86)
NOA	3753	2414 (64)	1163 (31)	176 (5)	3305 (88)
AUS	1402	564 (40)	578 (41)	260 (19)	1016 (72)
NZ	478	404 (85)	47 (10)	27 (6)	443 (93)

Completeness of trait information

The amount of entries with available information for the selected grouping features varied strongly for the preprocessed European, North American, and Australian datasets (Table 2). By contrast, the New Zealand dataset contained complete trait information for most of the investigated grouping features (between 94 % and 100 %).

Table 2: Rounded percentage of entries that have information for the individual grouping features shown per trait dataset.

Database	Body form	Oviposition	Voltinism	Locomotion	Size	Respiration	Feeding mode
EU	8	15	23	36	11	57	76
NOA	28	13	47	52	73	44	63
AUS	4	46	49	39	75	68	99
NZ	100	94	100	99	100	100	99