

SUPPLEMENTAL INFORMATION

COMPARING ENERGETICS AND PHYSIOLOGICAL TRAIT PATTERNS OF NORTH AMERICAN BIRDS TO SUPPORT ECOLOGICAL RISK ASSESSMENT

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Supplemental figures

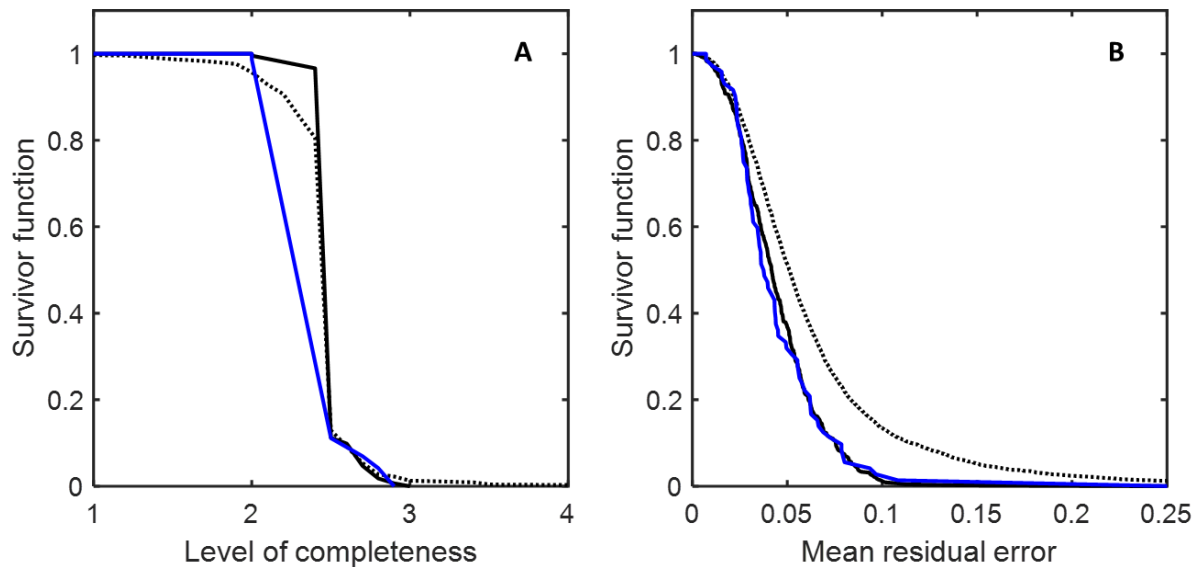


Figure A 1. Quality measures of AmP collection entries of all animals (dotted curves), terrestrial holarctic birds (TH birds, solid black curves) and selected North American birds of RA interest (RAS birds, solid blue curves). On a scale of 0 to 10, the level of completeness is a measure for the diversity of data types used in estimating parameters (Lika et al. 2011); the median level of completeness for all animals, TH birds and RAS birds is 2.44, 2.45 and 2.28, respectively (A). The mean residual error is a measure quantifying the difference between model predictions and data used in the estimation of parameters; the median mean residual error for all animals, TH birds and RAS birds is 0.051, 0.042 and 0.038, respectively (B). A

survivor function is the complement of a cumulative distribution and indicates the fraction of entries that meet at least the value on the abscissa.

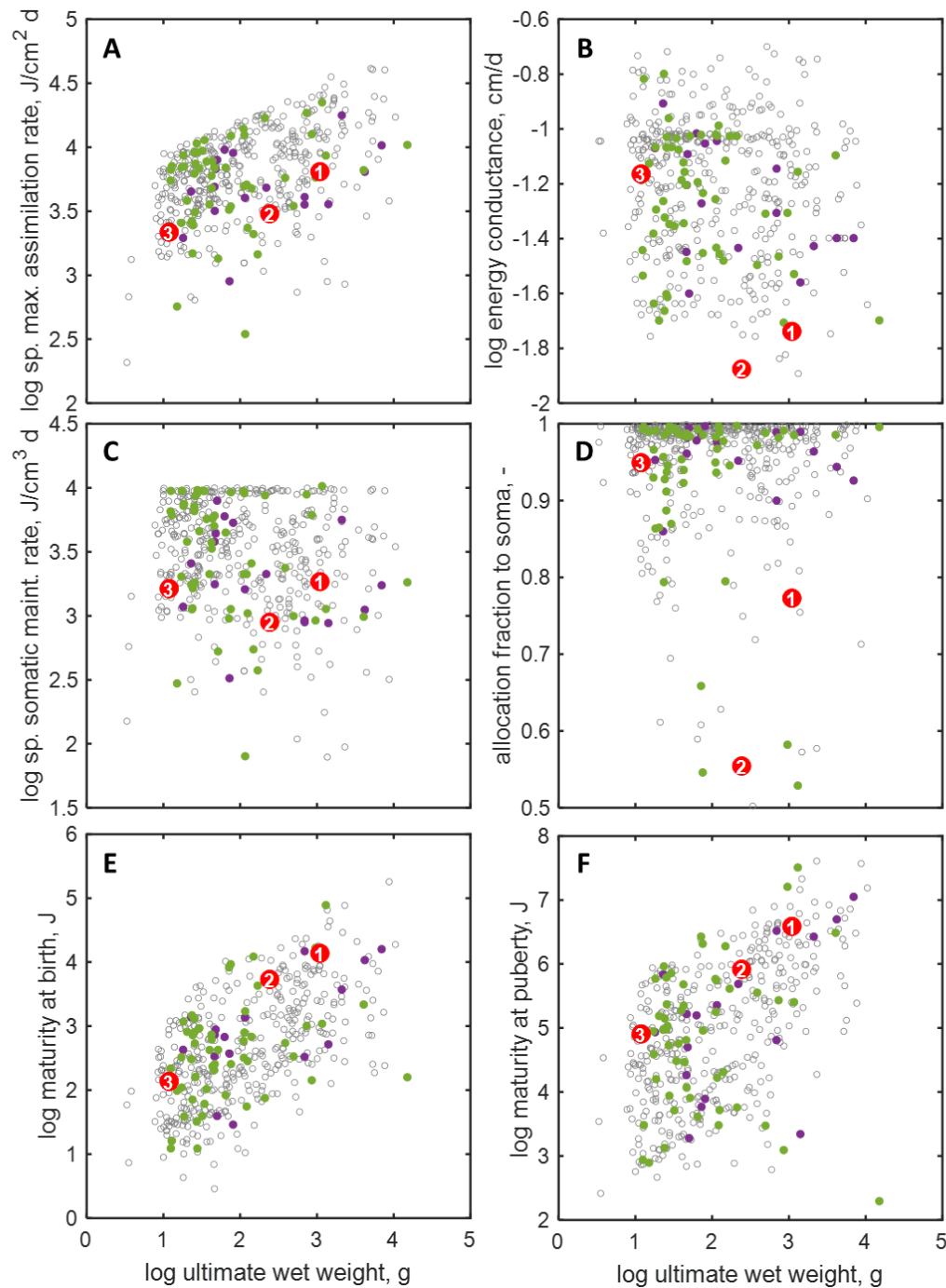


Figure A 2. Selected primary parameter values of terrestrial holarctic birds (open circles), federally listed birds (purple), other selected birds of RA interest (green), mallard (1), northern bobwhite (2) and zebra finch (3). RAS birds are comprised of federally listed birds and other selected birds of ERA interest. Among the latter are relatively more smaller sized species than in the former, but trends in parameter values are similar between the two groups.

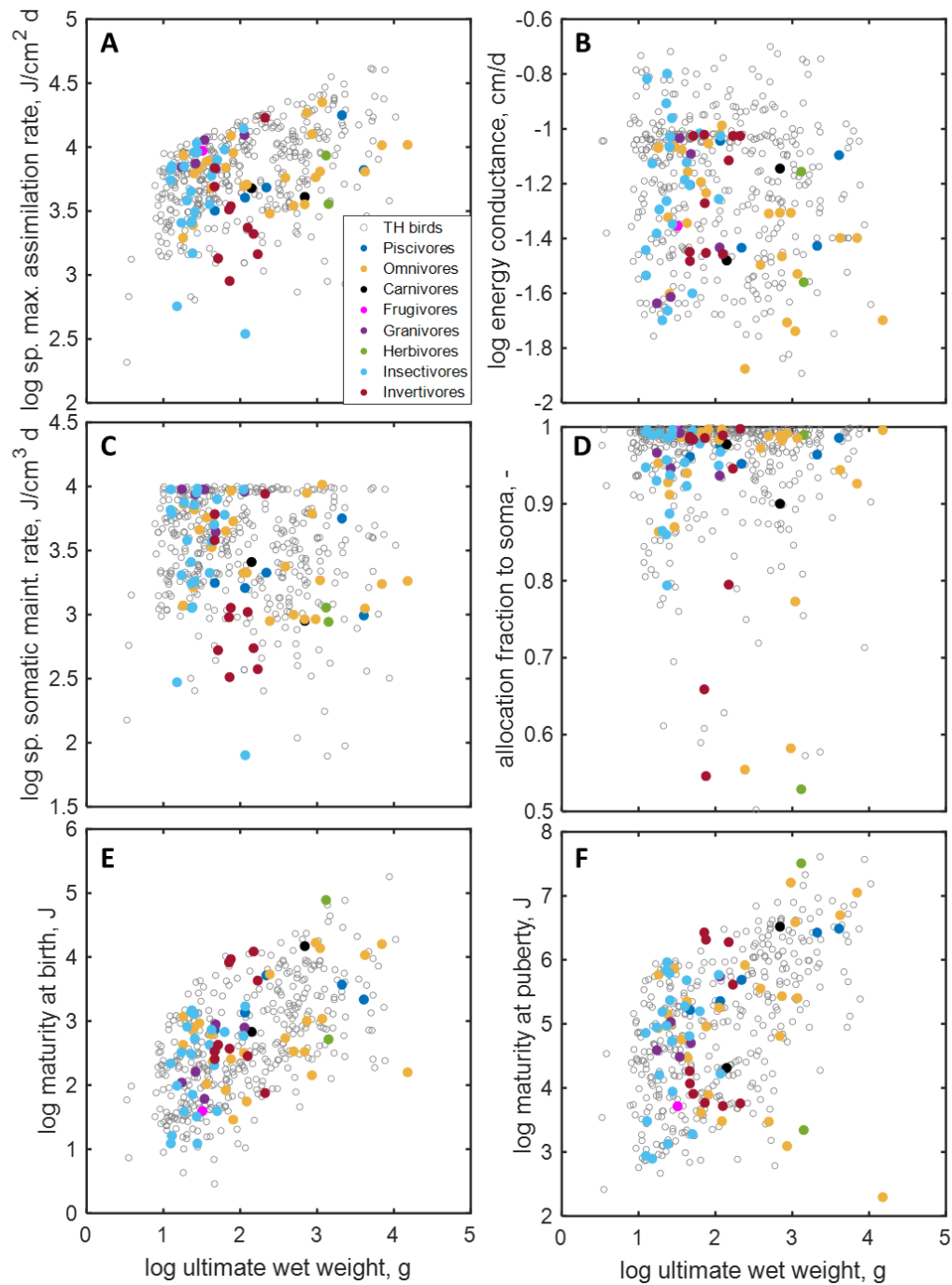


Figure A 3. Primary parameter values of RAS birds split up among feeding guild during breeding season. Many of the insectivores are among the smaller sized birds, whereas omnivores tend to have somewhat larger body sizes. Feeding guild does not appear to be a determinant of primary parameter values.

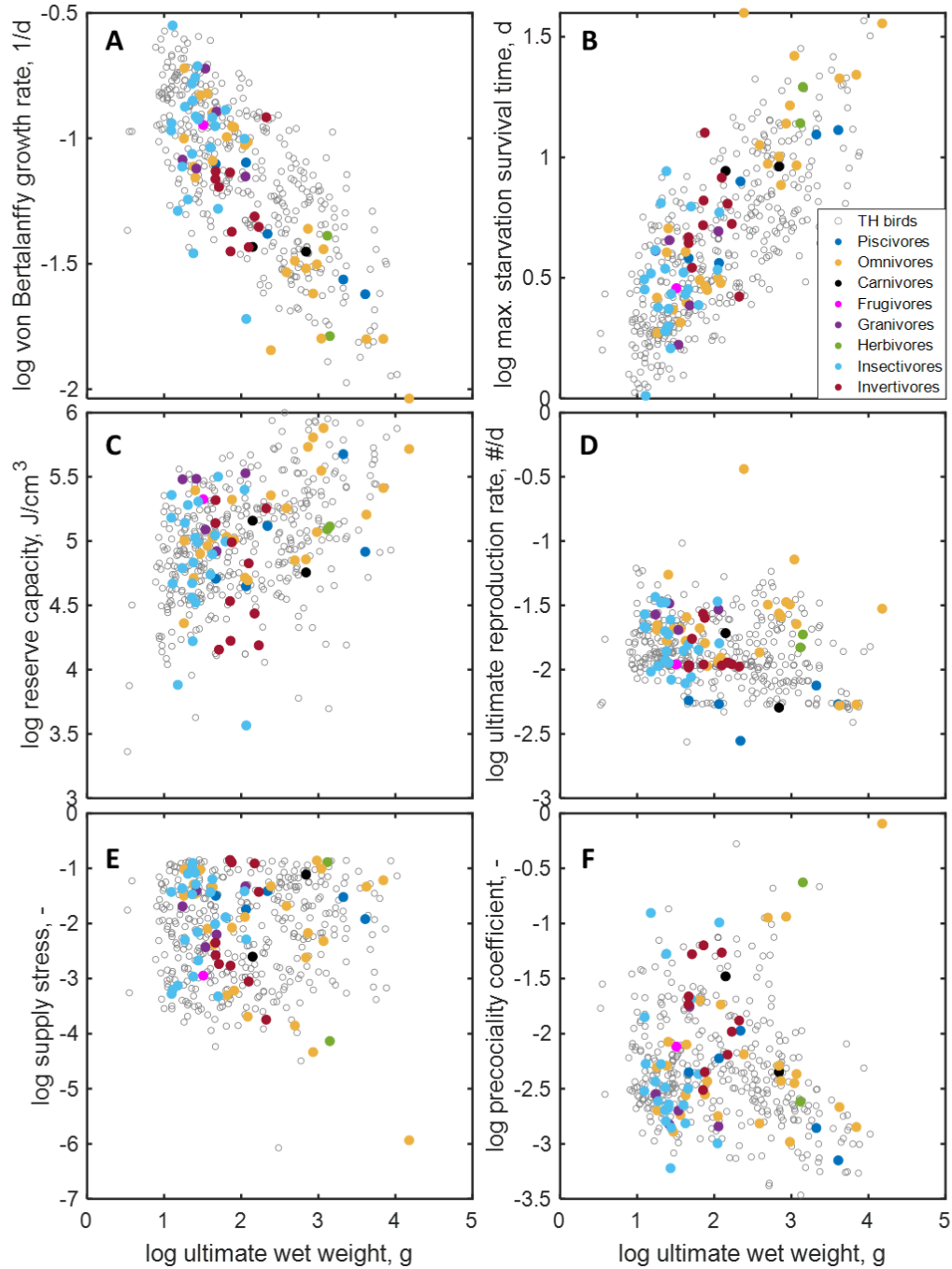


Figure A 4. Secondary parameter values of RAS birds split up among feeding guild during breeding season. Many of the insectivores are among the smaller sized birds, whereas omnivores tend to have somewhat larger body sizes. Feeding guild does not appear to be a determinant of secondary parameter values.

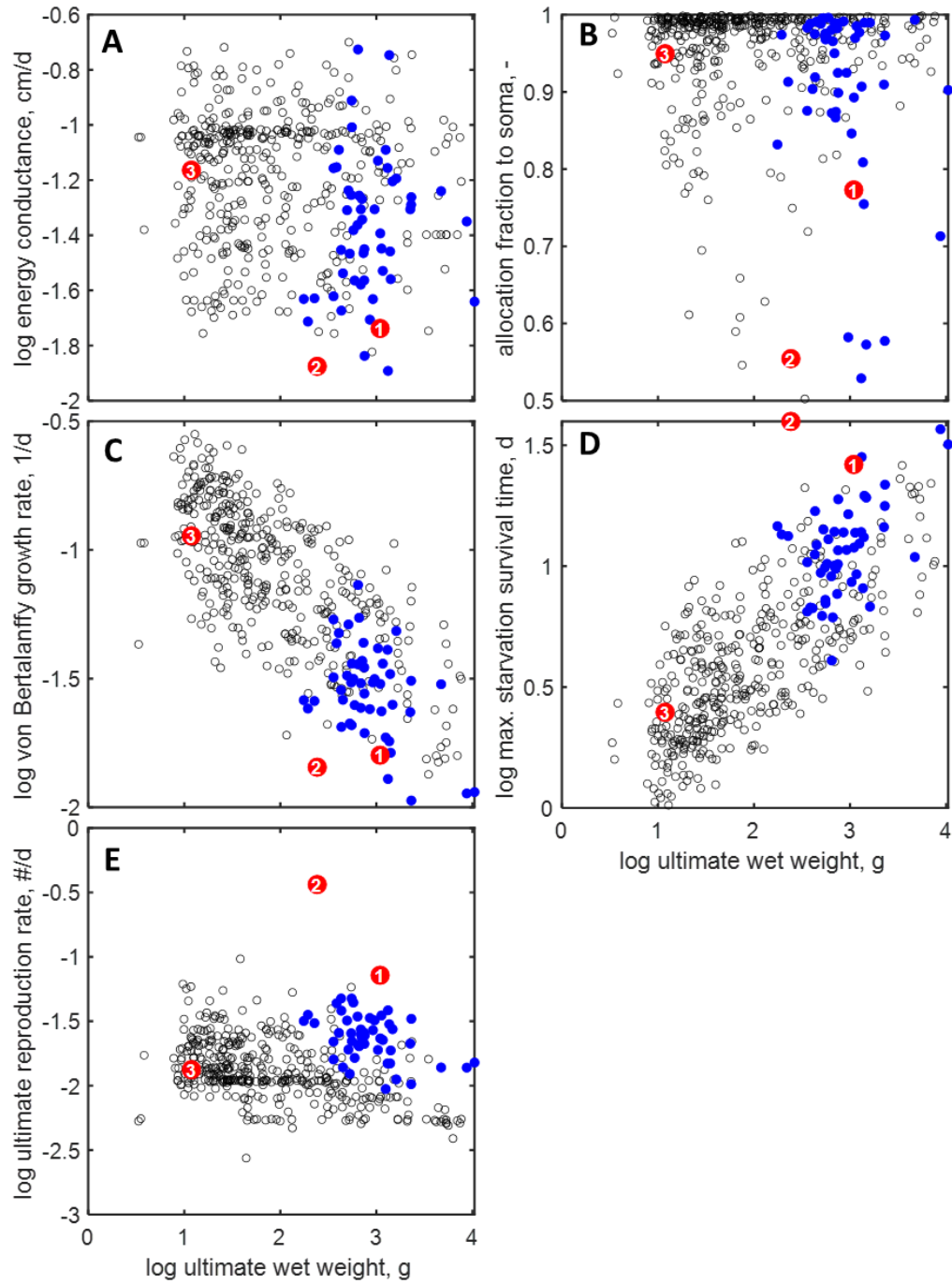


Figure A 5. Selected primary and secondary parameter values of TH birds (open symbols) and galloanserae (water and land fowl) among them (blue), as well as lab species mallard (1), northern bobwhite (2) and zebra finch (3). Fowl are among the larger among TH birds, but their primary parameters and derived traits are in line with those of other TH birds.

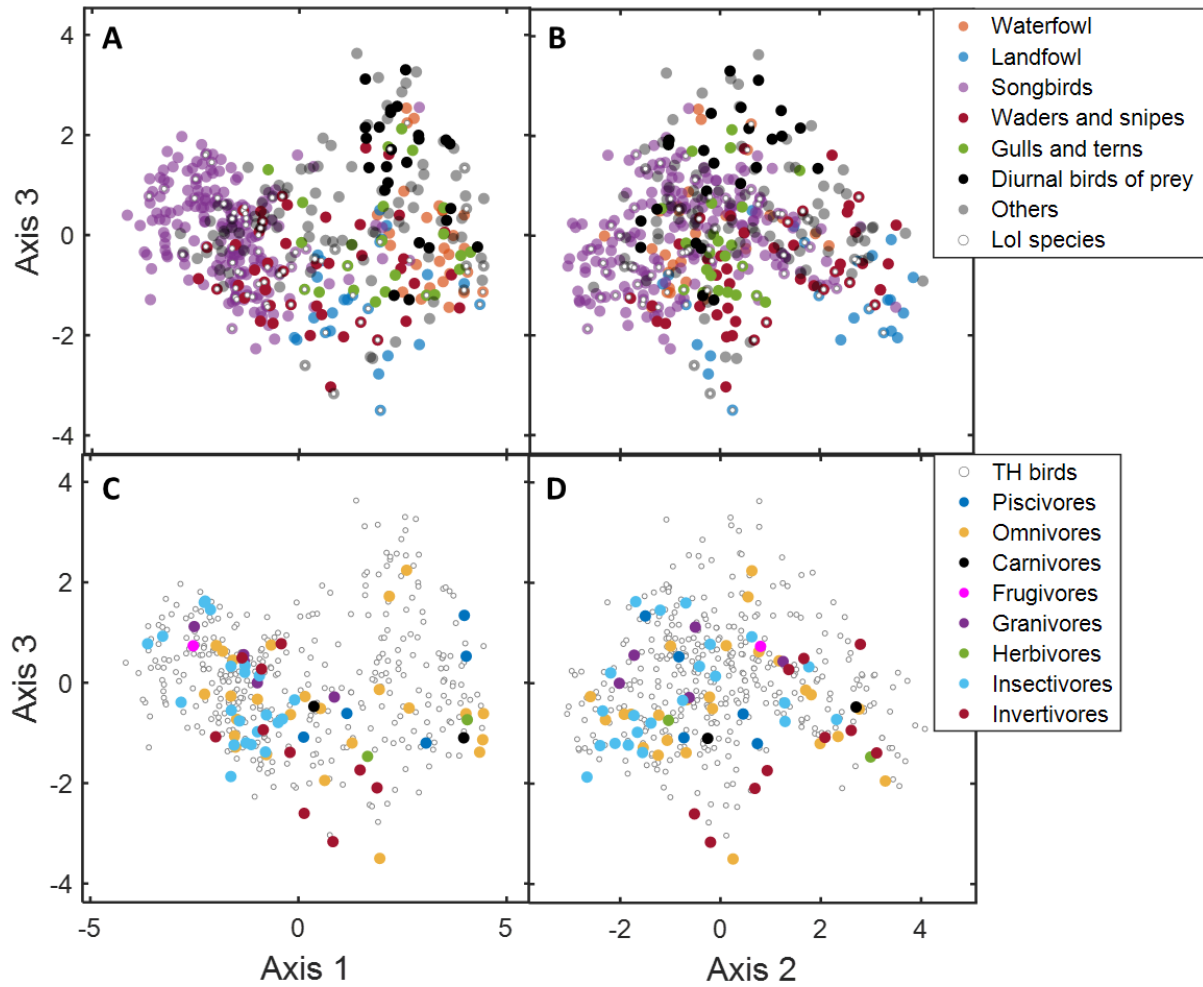


Figure A 6. Axis 3 versus axis 1 and 2 in the multidimensional scaling analysis with TH birds grouped in major taxonomic units (A and B) and with RAS birds classified according to membership of breeding season feeding guild (C and D). In Panel A and B, RAS species are marked with a small white circle inside the group markers.