

## LIST OF ABBREVIATIONS AND NAMING/NOTATION CONVENTIONS

**Journals:** Journal of Biogeography, Global Ecology and Biogeography, Diversity and Distributions

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- Define all abbreviations in **list B** below (term in full followed by abbreviation in parentheses) on **first mention** in the Abstract *and* text, and also in each figure and table legend, including the footnotes, unless another source is referred to, e.g. See Table 1 for definitions of variables. The same applies to common/Latin names of principal species.
- There is no need to use capital letters in the full term (unless it is a proper name), even though the abbreviation might be in capital letters.
- **Agencies and organizations** can be abbreviated in full caps with no full stops (e.g. NOAA, USDA) but they should be defined at first mention as usual. NB Institutions cited as authors should be given in abbreviated form where referred to in the text (e.g. WHO, 1989) and in full (for the publisher) in the reference list: e.g. WHO (1989) *Fisheries handbook*. World Health Organization, Geneva.

### (A) **Expansion not needed (but may be provided if deemed necessary)**

a.s.l.	above sea level
ADP	adenosine diphosphate
ANCOVA	analysis of covariance
ANOVA	analysis of variance
ATP	adenosine triphosphate
bp	base pairs
BP	before present (where 'present' is defined as AD 1950) [BP in small caps]
C <sub>4</sub> , C <sub>3</sub>	carbon-4 pathway, carbon-3 pathway [with 3 and 4 in subscript]
<sup>14</sup> C yr BP	radiocarbon years before present [with 14 in superscript]
cal. yr BP	calibrated/calendar years before present, e.g. 5,000–2,000 cal. yr BP
d.f.	degrees of freedom
DNA	deoxyribonucleic acid
<i>F</i>	e.g. <i>F</i> -test, <i>F</i> -distribution, <i>F</i> -statistic
<i>g</i>	gees/gravity
GIS	geographical information system
GPS	global positioning system
h	hour(s)
H <sub>0</sub>	null hypothesis [zero in subscript]
H <sub>1</sub>	alternative hypothesis [one in subscript]
ka	thousand years ago/kilo-annum [use for dates/ages]
kyr	thousand years [use for durations of time]

kyr BP	thousand years before present
ln	natural logarithm
log	logarithm
M	molar [M in small caps]
Ma	million years ago/mega-annum [use for dates/ages]
MANOVA	multivariate analysis of variance
max.	maximum
min.	minimum
min	minute(s)
mtDNA	mitochondrial DNA
Myr	million years [use for durations of time]
Myr BP	million years before present
<i>n</i> (not <i>N</i> )	sample size (number)
N, E, S, W	north, east, south, west
<i>P</i>	probability value
p.p.m.	parts per million
<i>r</i>	simple correlation coefficient
<i>R</i>	multiple correlation coefficient
$r^2$	
$R^2$	
$r_s$	Spearman's rank correlation coefficient
s	second(s)
SD	standard deviation
SE	standard error
yr	year; 'yr' is an allowed contraction of 'year' only: (1) where indicated in this list ( <sup>14</sup> C yr, cal. yr BP, kyr, Myr, yr BP), otherwise it should be expanded to 'year' throughout (e.g. 15-year study, not 15-yr study), and (2) in tables/figures where space is limited.
yr BP	years before present

Note: H<sub>2</sub>O, CO<sub>2</sub> and most common chemicals/compounds do not need to be defined.

### **(B) Expansion needed on first mention**

AET	actual evapotranspiration
AIC	Akaike's (or the Akaike) information criterion
AFLP	amplified fragment length polymorphism
AMOVA	analysis of molecular variance
ANOSIM	analysis of similarity
AUC	area under the curve
CAR	conditional autoregressive
CCA	canonical correspondence analysis
CI	confidence interval/consistency index
COI	cytochrome <i>c</i> oxidase subunit I
CTAB	cetyl trimethyl ammonium bromide
CV	coefficient of variation
cyt <i>b</i>	cytochrome <i>b</i> [only hyphenated as an adjective, e.g., the cyt- <i>b</i> sequence]
d.b.h.	diameter at breast height
DCA	detrended correspondence analysis
DCCA	detrended canonical correspondence analysis
ENSO	El Niño–Southern Oscillation [en rule, not hyphen]

GAM	generalized additive model
GCM	general circulation model
GDD	growing degree-days
GLM	general/generalized linear model
GPP	gross primary productivity
HCA	hierarchical cluster analysis
HSD	honestly significant difference [as in Tukey's (or the Tukey) HSD test]
HPD	highest posterior density
IBD	isolation by distance
ITS	internal transcribed spacer
JD	Julian Day
LAI	leaf area index
LGM	Last Glacial Maximum
MAT	mean annual temperature
MCMC	Markov chain Monte Carlo
ML	maximum likelihood
MMP	mean monthly precipitation
MP	maximum parsimony
MPT(s)	most parsimonious tree(s)
n.a.	not applicable
n.s.	not significant
NAO	North Atlantic Oscillation
NCA	nested clade analysis
NCPA	nested clade phylogeographic analysis
ND2	NADH dehydrogenase subunit 2
NDVI	normalized difference vegetation index
NMDS	non-metric multidimensional scaling
NPP	net primary productivity
OLS	ordinary least squares
PAE	parsimony analysis of endemism/parsimony analysis of endemism
PCA	principal components analysis
PCoA	principal coordinates analysis
PCR	polymerase chain reaction
PET	potential evapotranspiration
PFT	plant functional type
PP	posterior probability
RAPD	random amplified polymorphic DNA
RFLP	restriction fragment length polymorphism
ROC	receiver operating characteristic
SEM	structural equation modelling
SIE	small island effect/single-island endemic
SS	sum of squares
TBR	tree bisection–reconnection
UPGMA	unweighted pair group method with arithmetic mean
UTM	Universal Transverse Mercator

### **(C) Computer programs/software/languages**

Computer programs/software should be given in small caps following the Blackwell House Style Guide (<http://www.blackwellpublishing.com/pdf/House-style-2.pdf>) (e.g. PAUP\*, SPSS, BEAST, NTSYS, TREECON, STRUCTURE, BAPS, ARLEQUIN, TRACER, SEQUENCHER, MODELTEST, MRMODELTEST, MRBAYES, R8S, DNASP, BLASTX, CLUSTALX, CLUSTALW).

Programming languages should be given in full caps (e.g. R, PASCAL, FORTRAN).

**(D) Common statistical techniques and other common terms**

Bray–Curtis index of similarity [with en rule]

Hardy–Weinberg equilibrium [with en rule]

Mann–Whitney *U*-test [with en rule, *U* in italics followed by a hyphen]

Moran's *I* [with *I* in italics]

the Pearson (or Pearson's) product–moment correlation coefficient

Shannon–Wiener diversity index [with en rule]

Sørensen's index of similarity/the Sørensen similarity index

altitude – use when referring to the height of points above the ground

elevation – use when referring to the height of points on the ground

alpha diversity, beta diversity and gamma diversity can be used interchangeably with  
 $\alpha$ -diversity,  $\beta$ -diversity and  $\gamma$ -diversity, respectively

base pairs      not basepairs

palae-          not pale- (except in original references, web sites and departments)

post-glacial    [with a hyphen]

tree line        not treeline

*Use an en-rule to replace 'to' or 'and' between words of equal importance only when the prefix can stand alone, e.g.:*

dispersal–vicariance

east–west

mark–recapture

north–south

plant–insect associations

presence–absence

species–area relationships

water–energy dynamics

*En rules in chemicals:* use hyphens in long chemical names. Use an en rule in chemical mixtures/bonds that have retained their individual properties and have **not** become a new compound (e.g. DEAE–cellulose).

*Use en rules in intergenic spacers, e.g. trnL–trnF, trnH–psbA, trnL–F.*

**(E) Exponential notation**

Computer notation such as 4.1E-4 should not be used. Rather, exponential notation should be expressed in the form:  $4.1 \times 10^{-4}$ .