

Appendix A. *Spelling List*

This appendix shows the treatment of technical terms that are encountered frequently in AFS publications. There are two lists, one for terms relating to mathematics and statistics and one for other terms. Parts of speech are abbreviated as follows: adj = adjective, adv = adverb, n = noun, and v = verb. Superscripted numerals refer to notes at the end of the appendix.

The sources for the second list are abbreviated as follows: W11 = *Merriam-Webster's Collegiate Dictionary*, 11th edition; W3 = *Webster's Third New International Dictionary* (but not W11); CMS = *Chicago Manual of Style*, 15th edition; CBE = *Scientific Style and Format*, 6th edition (Council of Biology Editors, Cambridge, UK); and FT = *Fisheries Techniques*, 2nd edition (American Fisheries Society, Bethesda, Maryland).

Asterisks indicate terms that are not in either of the two dictionaries, plus signs terms for which AFS's treatment differs from that in these dictionaries.

1. *Mathematical and Statistical Terms*

analysis of variance (n; adj)	discriminant function analysis
analysis of covariance (n; adj)	dome-shaped curve
arcsine (arcsin in mathematical expressions, e.g., $\arcsin[x + 1]$)	Delphi technique
arcsine transformation	Duncan's multiple-range test
arcsine-transformed	$E(x)$ (expected value)
Bartlett's test	η (eta; amount of variation in a given variable accounted for by ANOVA)
base e , base 10 (n)	expectation-maximization algorithm
base- e , base-10 (adj)	error-prone estimates
best fit (n)	Friedman's rank-sum statistic
best-fit (adj)	Friedman two-way analysis of variance by ranks
Beverton–Holt	F -statistic, -test, -value
Bonferroni	
bootstrap	
Chapman–Robson method	general linear model (n; adj)
chi-square (or χ^2) test (<i>not</i> chi-squared test)	generalized least squares
coefficient of variation (define as $100 \times \text{SD}/\text{mean}$ or $100 \times \text{SE}/\text{mean}$)	G -test, -value
cross-classify	goodness of fit (n)
detrended correspondence analysis	goodness-of-fit (adj)
	growth-invariant discriminant functions

H_0 (null hypothesis)
 H_A (or H_a) (alternative hypothesis)
 habitat suitability curve
 Hardy–Weinberg expectation
 heteroscedastic, -icity
 homoscedastic, -icity
 honestly significantly different test
 Hotelling–Lawley criteria
 Hotelling's T^2 -statistic

 Jolly–Seber model
 Jonckheere test

 Kendall coefficient of correspondence
 (W)
 Kendall rank correlation coefficient (τ)
 Kendall's tau (or τ)
 Keuls' test
 Kolmogorov D-statistic
 Kolmogorov–Smirnov cumulative
 distribution test
 Kolmogorov–Smirnov one-sample test
 k -sample binomial test ($2 \times k$ test)
 Kruskal–Wallis H -test
 Kruskal–Wallis k -sample test

 least significant difference (n)
 least-significant-difference (adj)
 least squares (n)
 least-squares (adj)
 linear discriminant analysis
 \log_e (or \ln), \log_{10}
 logistic regression
 log-likelihood function
 log-linear
 lognormal, -ity
 log-transformed (log transformed after
 its noun)

 Mahalanobis distance
 Mann–Whitney U -test
 maximum likelihood (n; adj)
 mean square error
 Monte Carlo
 multiattribute utility analysis
 multinomial distribution

 multiple comparison procedure
 multiple correlation (n)
 multiple-correlation (adj)
 multiple regression (n)
 multiple-regression (adj)
 multisample single recapture model
 multivariate analysis
 multivariate analysis of variance

 Newman–Keuls
 nonlinear least-squares regression
 nonuniform probability sampling

 one-way analysis of variance

 pair-group method
 pairwise comparison
 Pearson's product-moment correlation
 coefficient
 Pillai criteria
 product-moment correlation
 product-multinomial sampling
 P -value

 r (correlation coefficient)
 R^2 (coefficient of multiple
 determination;
 r^2 if only one explanatory variable)
 rank sum (n)
 rank-sum (adj)

 Scheffé's statistic
 Shannon–Weiner diversity index (H')
 Shapiro–Wilk W
 signed rank
 sign test
 skewed distribution
 Spearman's rank correlation coefficient
 (r_s)
 square-root-transformed data
 stratified random design (or sampling)
 stratified-random-sample model
 Strauss's linear index
 Student–Newman–Keuls test

 time series analysis

t-test
 Tukey–Kramer analysis
 Tukey post hoc analysis
 Tukey’s test
 two-way analysis of variance
 type I (or II) error

 unweighted pair-group method with
 arithmetic averages
U-test

 Var(*x*) (or $V[x]$) (population variance)
 var (*x*) (or $\bar{\text{var}}[x]$ or $\bar{V}[x]$) (sample
 variance)
 variance–covariance

W (Kendall coefficient of
 correspondence)
 Wilcoxon–Mann–Whitney two-sample
 test
 Wilcoxon matched-pairs, signed-ranks
 test
 Wilcoxon rank-sum test
 Wilcoxon’s signed rank test
 Wilks criterion
 Wilks’ lambda (or λ)

x-axis, -coordinate, -intercept

y-axis, -coordinate, -intercept

2. Other Terms

acid-neutralizing*
 acid-tolerant*
 acre-foot, acre-feet (n)^{W11}
 acre-foot-day (n)*
 acre-inch (n)^{W11}
x at age (n)*
x-at-age (adj)*
 age *x* (n)*

 age-*x* (adj; age *x* after its noun)*

age-class (n^{W3}; adj*)¹⁷
 age-cohort (n; adj)¹⁷
 age-group (n^{W11}; adj*)¹⁷
 age structure (n; adj)*
 air bladder (n^{W11}; adj*)²⁴
 air-breathing (adj)*
 air-dried (adj; v)*
 air-dry (v)^{W11}
 air sac (n)^{W11} [in birds only]
 air stone (n; adj)
 alongshore (adj; adv)^{W11}
 ammonia nitrogen or NH₃-N (n^{W3}; adj*)
 ammonium nitrate (n^{W11}; adj*)
 ammonium nitrogen or NH₄⁺-N (n^{W3};
 adj*)
 angler data (n; adj)*
 angler-day (n)*¹⁹
 angler effort (n; adj)*
 angler-hour (n)*¹⁹
 appendices or appendixes (n)^{W11}
 aquaculture [*not* aquiculture]
 artificial intelligence (n^{W11}; adj*)

 back-calculate (v)*
 back-calculation (n)*
 backwater (n)^{W11}
 baitfish (n)^{W3}
 bait line (n; adj)*
 bait minnow (adj)*
 bank fish (n^{W3}; adj*)
 bank-full (adj)^{W3}
 barbed wire (n)^{W11}
 barbed-wire (adj)*
 barbwire (n; adj)*
 bar code (n^{W11}; adj*)
 base flow (n; adj)*
 baseplate (n)^{W3}
 B cell (n^{W11}; adj*)¹¹
 bedform
 bed load (n; adj)*
 benefit-cost or cost-benefit (adj)^{W11}
 binary code (n)*
 binary-coded wire tag (adj)*
 biotelemetry (n)^{W11}
 blacktail (n)^{W3}
 bleb-like (adj)*²¹

block net (n)*
block-net (adj)*
blocknet (v)*
block-netter (n)*
block netting (n)*
block-netting (adj)*
blow down (v)*
blowdown (n; adj)^{W11}
x boat *or* *x*boat (n)¹⁸
bottom fish (n^{W3}; adj*)
bottom fishing (n^{W3})
box plot (n)*
brackish water (n)^{W11}
brackish-water (adj)^{W11}
break up (v)^{W11}
breakup (n)^{W11}
breakwater (n)^{W11}
brewer's yeast (adj)^{W11}
brood female (n^{W3}; adj*)
broodfish (n)*
broodsac (n)^{W3}
broodstock (n)+
brood year (n; adj)*²⁰
bus route (n; adj)*
bycatch (n)*
by-product (n)^{W11}

carbon-14 (n; adj)+
case history (n^{W3}; adj*)
cast net (n)^{W3}
cast-net (adj)*
castnet (v)*
catch curve (n)
catch-curve (adj)
catch depletion method
catch-release (adj)*
catch and release (n)*
catch-and-release (adj)*
catch per effort *or* catch per unit effort
(n)*
catch-per-effort *or* catch-per-unit-effort
(adj)*
char (n)^{W11} [*not* charr]
charter boat (n)*
charter boat *or* charter-boat (adj*)¹⁸
charter fishing boat (n)*

chlorophyll *a* (n)^{W11}
chlorophyll-*a* (adj)*
clear-cut (n; adj)^{W11}
clear-cut (v)*
clear-cutting (n^{W11}; adj*)
cobalt-60 (n; adj)+¹⁵
coded wire tag (n; adj)*
coded-wire-tagged (adj; v)*
coded wire tagging (n)*
coded-wire-tagging (adj)*
cod end (n^{W3}; adj*)
cold brand (n)*⁸
cold-brand (adj; v)*⁸
cold water (n)^{W11}
coldwater (adj)+
cold-water disease (adj)*
common property (n)^{W3}
common-property (adj)*
compact disc (n)^{W11, 23}
contingent valuation (n; adj)*
cool water (n)*
coolwater (adj)*
cost-benefit (adj)^{W11}
coworker (n)^{W11}
cove rotenone sampling
creel (n; v)^{W11}
crosshatch (n; v)^{W11}
cross-hatching (n)^{W11}
cross-react (v)^{W11}
cross-reaction (n)^{W11}
cross-reactive (adj)^{W11}
cross section (n)^{W11}
cross-section (v)^{W11}
cross-sectional (adj)^{W11}
cross validate (v)*
cross validation (n)*
cut bank (n; adj)*

daphnia (n)^{W11} [define as *Daphnia* spp.
at first use]
data (n)^{W11} [singular: datum; data takes
plural verb]
database (n)^{W11}
data logger (n; adj)*
data set (n)*
x-day¹⁹

day length (n; adj)*
 decision maker (n; adj)*¹
 decision making (n)*²
 decision-making (adj)*²
 deep sea (n)^{W3}
 deep-sea (adj)^{W11}
 deep water (n)*
 deepwater (adj)^{W11}
 deepwaterman (n)^{W3}
 degree-day (n)^{W11}
 Dermo (n)*
 desktop (n)^{W11}
 die off (v)^{W11}
 die-off (n)^{W11}; adj*)
 dip net (n)^{W11}
 dip-net (adj)*
 dipnet (v)^{W11}
 dipnetter (n)^{W3}
 dipnetting (n)^{W3}
 disc brake (n)^{W11}; adj*)²³
 disk *or* disc (n)^{W11, 23}
 distiller's (adj)+
 D-loop (n; adj)
 dome-shaped (adj)*
 dorsolateral (adj)^{W11}
 dorsoventral (adj)^{W11} [*not* dorsiventral]
 dorsoventrally (adv)^{W11}
 double-tag (v)*
 double-tagged (adj)*
 downcurrent
 downlake (adj; adv)*
 download (v)^{W11}
 downstream (adj; adv)^{W11}
 drift net

 early *x or* early-*x* (adj)^{W11})³
 early (adv)^{W11})³
 echolocation (n)^{W11}
 echo sounder (n)^{W11}; adj*)
 echo sounding (n)*
 echo-sounding (adj)*
 ecosystem-wide (adj)*²²
 e-mail (n; adj)+
 end label (n; adj)*
 end-labeled (adj)*
 endpoint (n)^{W11} [end of line]

end point (n)^{W11} [objective]
 exvessel (n)* [prevailing usage]
 eyed egg (n)^{W3}
 eyed egg stage (adj)*
 eye-up (n; adj)*

 family-group (n; adj)*
 fax (n; v)^{W11}
 fieldwork (n)^{W11}
 field-worker (n)^{W11}
 filterability (n)^{W11}
 filterable (adj)^{W11}
 filter-feed (v)*
 filter feeder (n)^{W11}
 filter feeding (n)*
 filter-feeding (adj)*
 fin clip (n; adj)*
 fin-clipped, fin-clipping (v)*
 finfish (n)^{W11}
 fin fold (n)^{W3}; adj*)⁵
 fin ray (n; adj)*
 first-order (adj)^{W11, 16}
 fish culture (n)^{W3}; adj*)
 fish culturist (n)*
 fish farm (n)^{W11}; adj*)
 fish-farm (v)^{W11}
 fish-farming (n)^{W3}; adj*)
 fish-finder (n)^{W3}
 fish hatchery (n)^{W3}; adj*)
 fish ladder (n)^{W3}; adj*)
 fishline (n)^{W3}
 fish meal (n)^{W3}; adj*)
 fishnet (n)^{W11}
 fishpond (n)^{W11}
 fishpound (n)^{W3}
 fishway (n)^{W11}
 fishweir (n)^{W3}
 fish well (n)^{W3}; adj*)
 fish wheel (n)^{W3}; adj*)
 floppy disk (n)^{W11, 23}
 flowmeter (n)^{W11}
 flow rate (n; adj)*
 fly-fish (v)^{W3}
 fly fisher (n; adj)+
 fly fisherman (n)^{W11}; adj*)
 fly-fishing (n)^{W11}

focal point (n; adj)*
xfold *or* x-fold [e.g., fourfold, 14-fold]
food fish (n^{W3}; adj*)
footrope (n)^{W11}
FORTRAN *or* Fortran (n)^{W11}
freeze brand (n; v)*⁸
freeze-branded (adj; v)*⁸
freeze branding (n)*⁸
freeze-branding (adj; v)*⁸
freeze-dried (adj)^{W11}
freeze-dry (v)^{W11}
freeze-drying (n)^{W3}
freshwater (n; adj)^{W11} [as opposed to salt
or brackish water]
fresh water (n) [new water]
full time (n)^{W11}
full-time (adj; adv)^{W11}
fyke net (n)
fyke netting (n)
fyke-net (adj; v)

gallbladder (n)^{W11}
game fish (n^{W11}; adj*)
game fisherman (n; adj)*
game-fishing (n; adj)*
gamma irradiation (n)*
gas bladder (n; adj)²⁴
gauge (n; v)^{W11} [*not* gage]
generating station (n)^{W3, 4}
gill net (n)^{W11}
gill-net (adj)*
gillnet (v)^{W11}
gillnetter (n; adj)^{W11}
gill netting (n)*
gillnetting (v)*
gill raker (n^{W11}; adj*)
gray (adj)^{W11} [*not* grey]
groundfish (n)^{W11}
groundfish fishery (n)* [preferable
to groundfishery]
ground truth (adj)*
ground-truth (v)
ground-truthing (n)*
groundwater (n)^{W11}
group *x*¹⁷
grow out (v)^{W3}

grow out (n)*
grow-out (adj)*

handline (n; v)^{W3}
hard water (n)*
hard-water (adj)*
haulback
headboat (n)*¹⁸
headrope (n)^{W3}
headstream (n)^{W11}
headwater (n)^{W11}
herpesvirus (n)^{W11}
high sea (n)^{W11} [usually plural]
high-sea (adj)*
high water (n)^{W11}
high-water (adj)^{W11}
hook and line (n)*
hook-and-line (adj)*
hook-and-liner (n^{W3}; adj*) [the boat]
x-hour¹⁹
hydro (n; adj)^{W11} [short for hydropower]
hydrox^{W11}
hydroelectric (adj)^{W11}
hydropower (n)^{W11}

ice melt (n; adj)*
ice-out (n^{W11}; adj*)
image-processing (adj)*
index (n)^{W11} [plural: indices *or* indexes]
inflow (n)^{W11}
inflow (v)^{W3}
*xing*²
in-lake (adj)*
in-river (adj)*
inshore (adj; adv)^{W11}
in stream (n)*
instream (adj)*
interisland (adj)^{W11}
intervertebral disk (n)^{W11, 23}
in vitro (adj; adv)^{W11} [not italic]
in vivo (adj; adv)^{W11} [not italic]
iteroparous (adj)*

johnboat (n)^{W11, 18}
kick-sampling (n; adj)*
kick-seining (n; adj)*

x-kilometer¹⁹

lake bed (n^{W3}; adj*) [lakebed all right
when used with streambed]

lakefront (n)^{W11}

lakeshore (n)^{W11}

lakeside (n)^{W11}

lake water (n; adj)*

laptop (n; adj)^{W11}

large-scale (adj)^{W11}

larva (n)^{W11} [plural: larvae]

larval (adj)^{W11}

lateral line (n^{W11}; adj*)⁵

lateroventral (n)*

length-cohort (n; adj)*¹⁷

length frequency (n)*

length frequency *or* length-frequency
(adj)*²⁵

length-group (n; adj)*¹⁷

length-weight (adj)* [length and weight]

length : weight (adj)* [length to weight]

leukocrit (n)*

leukocyte (n)^{W11}

life cycle (n^{W11}; adj*)

life history (n^{W11}; adj*)

life-size *or* life-sized (adj)^{W11}

life span (n^{W11}; adj*)

life stage (n; adj)*

lifestyle (n)^{W11}

lifetime (n; adj)^{W11}

light pen (n^{W11}; adj*)

lightproof (adj)^{W11}

light stick (n; adj)*

lightweight (n)^{W11}

xlike²¹

limited access (n)*

limited-access (adj)^{W11}

limited entry (n)*

limited-entry (adj)*

live-box (n^{W11}; adj*)

live-cage (n; adj)*

live trap (n)^{W11}

live-trap (adj)*

livetrap (v)^{W11}

liveweight (n)^{W3}

live well (n)^{W3} [live-box for fish]

live-well (adj)*

long-line (v)*

longline (n)^{W11}

long-liner (n)^{W11}

long-lining (n)^{W11}

long-lived (adj)^{W11}

longshore (adj)^{W3}

long-term (adj)^{W11}

longtime (adj)^{W11}

low-head (adj)

mainframe (n)^{W11}

main stem (n)^{W11}

main-stem (adj)*

mainstream (n; adj)^{W11}

x maker¹

x making²

mark-recapture (n; adj)*

mass mark (n)*⁹

mass-mark (v)*⁹

mass-marked (adj)*⁹

mass marking (n)*⁹

mass-marking (adj)*⁹

megalops (n)^{W3} [plural: megalops
or megalopses]^{W11}

megalopic (adj)^{W3}

meltwater (n)^{W11}

microchip (n)^{W11}

microcomputer (n)^{W11}

microwell plate (n; adj)

microwire tag (n)*

microwire-tagged (adj; v)*

mid (adj)^{W11} *or* mid-⁶

middepth (n)*⁶

midwater (n+; adj)*⁶

x-mile¹⁹

minicomputer (n)^{W11}

minimum size limit (n)*

minimum-size-limit (adj)*

mixed-stock analysis (n)*

mollusk [preferred] *or* mollusk (n)^{W11}

xmost (adj)^{W11}

mother ship (n)^{W3}

mother ship *or* mothership (adj)*

motorboat (n)^{W11, 18}

mouthbreeder (n)^{W11}

mouthbrooder (n)*
mouth-brooding (adj)*
multispecies (adj)^{W11}

near shore (n)*
nearshore (adj; adv)^{W11}
net-day; net-night (n)*¹⁹
net-pen (n; adj)*
net lift
net plankton (n)^{W3}; (adj)*
network (n; v)^{W11}
networking (n)^{W11}
neutron activation (n; adj)*
nick translation (n; adj)*
nick-translated [open after noun]
nitrate-nitrogen *or* NO₃-N (n)*
nitrite-nitrogen *or* NO₂-N (n)*
nonangler (n)*
nonnative (n)^{W11}
nonnormal (n)*
non-point-source (adj)*¹³
non-yolk-bearing (adj)*¹³
number crunching (n)^{W11}
number-crunching (adj)*

off-center *or* off-centered (adj)^{W3}
off shore (n)*
offshore (adj; adv)^{W11}
off-station (adj)*
old growth (n)^{W3}
old-growth (adj)*
onboard (adj)^{W11}
on site (n)*
on-site (adj; adv)^{W11}
open-formula diet (n)*
open water (n)^{W3}
open-water (adj)*
optical disk *or* disc (n)^{W11, 23}
x-order¹⁶
out-migrant (n)^{W11}; (adj)*
out-migrate (v)^{W11}
out-migration (n)^{W11}; (adj)*
overfish (v)^{W11}
overfishing (n)
overwinter (v; adj)^{W11}

Pascal *or* PASCAL (n)^{W11}
pattern recognition (adj)*
PC (n)^{W11} [personal computer]
percent (n; adj; adv)^{W11}
percentage (n)^{W11}
Petersen disc (n; adj)*
phone book (n; adj)*
phosphorous (adj)^{W11}
phosphorus (n)^{W11} [the element]
physicochemical (adj)^{W11}
PIT tag (n; adj)*
PIT-tag (v)*
PIT tagging (n)*
point source (adj)*
policymaker (n)*¹
pond water (n; adj)*
pop net (n)*
pop-net (adj)*
postx
poststocking (adj)*
powerhouse (n)^{W11}
power plant (n)^{W11}; (adj)*⁴
power station (n)^{W11}; (adj)*⁴
predator-prey (adj)*
presmolt (n; adj)*
prey fish (n; adj)*
pre-yolk-sac (adj)*¹³
proteinase *K*
purse seine *or* purse net (n)^{W11}
purse-seine (adj; v)*¹⁰
purse seiner (n)^{W11}; (adj)*
purse seining (n)^{W11}
purse-seining (adj)*
push net (n)^{W3}
push-net (adj)*

quasix (adj)^{W11}

radio tag (n; adj)*¹²
radio-tag (v)*¹²
radio-tagged (adj; v)*¹²
radiotelemetry (n)^{W11, 12}
radio-track (v)*
radio-tracked (v; adj)*
radio transmitter (n)^{W3}; (adj)*
rain forest (n)^{W11}; (adj)*

rebar (n)^{W11}
 recirculating water (adj)
 riverbank (n)^{W11}
 riverbed (n)^{W11}
 RNase (n)^{W11} [*not* RNAase]
 rootwad (n)*
 R plasmid (n)*¹¹
 run off (v)^{W11}
 runoff (n)^{W11}

sagitta (n)^{W3} [plural: *sagittas or sagittae*]
 saltfish (n)*
 salt lake (n)^{W11}; adj*)
 salt marsh (n)^{W11}
 salt-marsh (adj)^{W3}
 salt water (n)^{W3}
 saltwater (adj)^{W11}
 seabed (n)^{W11}
 seafloor (n)^{W11}
 sea grass (n)^{W11}
 sea ice (n)^{W3}; adj*)
 sea level (n)^{W11}; adj*)
 sea pen (n)^{W11}; adj*) [an anthozoan]
 sea-pen (n; adj)* [type of net-pen]
 sea ranching (n)*
 sea-ranching (adj)*
 sea-run (adj)^{W11}
 sea-running (adj)^{W3}; v*)
 sea surface (adj)*
 seawater (n)^{W11}
 Secchi disk (n; adj)*
 second growth (n)^{W11}
 second-growth (adj)*¹⁶
 second-order (adj)^{W3, 16}
 seine (v)^{W11}
 seine *or* seine net (n)^{W11}
 seine *or* seine-net (adj)*
 seiner *or* seine-netter (n)^{W11}
 semelparous (adj)*
 serum (n)^{W11} [plural: *sera or serums*]
 setline (n)^{W11}
 shallow water (n)*
 shallow-water (adj)*
 shoreline (n)^{W11}
 short tandem repeat (n; adj)
 short term (n)*

short-term (adj)^{W11}
 side-scan sonar (n)^{W11}
 single-nucleotide polymorphism
x-size *or x*-sized
 size-class (n; adj)*
 size-frequency (adj)*
 size-group (n; adj)*¹⁷
 size range (n)*
 size-selective (adj)* [size selective after noun]
 snowmelt (n)^{W11}
 sociocultural (adj)^{W11}
 socioeconomic (adj)^{W11}
 socioeconomics (n)*
 software (n)^{W11}
 soft water (n)*
 soft-water (adj)*
 species' [possessive]
 species composition (n; adj)*
x-specific
 speedboat (n)^{W11, 18}
 sport fish (n)^{W11}; adj*)
 sport fisherman (n)^{W11}; adj*) [the person]
 sportfisherman (n)^{W11} [the boat]
 sport fishery (n; adj)*
 sportfishing (n)^{W11}
 sportfishing (adj)*
 spreadsheet (n)^{W11}
 springwater (n)^{W3}
 stainless steel (n)^{W11}; adj*)
 starch gel (n; adj)*
 state-space (n; adj)
 steady state (n; adj)^{W11}
 stock–recruit (adj)*
 stock–recruitment (n; adj)*
 stop-log (n)
 streambank (n)*
 streambed (n)^{W11}
 streamflow (n)^{W3}
 streamside (n)^{W11}
 strip-spawned (adj; v)*
 strip-spawning (n; adj)*
 superphosphate (n)^{W11}
 surface water (n; adj)*
 surplus production model
 swim bladder (n)^{W11}; adj*)²⁴

swim-up (n; adj)*
tag-release (n; adj)*
tailwater (n)^{W11}
tap water (n)^{W11}; adj*)
T cell (n; adj)^{W11, 11}
thin section (n)^{W3}
thin-section (v)*
third-order (adj)^{W3, 16}
tidewater (n)^{W11}
timesaving (adj)^{W11}
time series (n)^{W11}; adj*)
tow net *or* towing net (n)+
townet (v; adj)*
trapline (n)^{W11}
trap net (n)^{W3}
trap-net (adj)*
trap-net (v)*
trap-netting (n; v)*
travel cost (n; adj)*
T wave (n)^{W3}
T-wave (adj)*
type *x*; *x*-type¹⁷
type A (adj)^{W11, 17}
type species (n)^{W11}; adj*)

ultraviolet-A
un-ionized (adj)*
uranium-235 (n; adj)+¹⁵

video camera (n)*
video-camera (adj)*
videocassette (n)^{W11}
videodisc (n)^{W11, 23}
videotape (n; v)^{W11}
video terminal (n)*
virus-like (adj)*²¹
vitamin *x* (adj)
vitamin-C-free diet

warm water (n)^{W3}
warmwater (adj)^{W3}
wastewater (n)^{W11}
waterborne (adj)^{W11}
water column (n)^{W3}; adj*)

water-hardened (adj; v*)
water hardening (n)*
water-hardening (adj)*
waterpower (n)^{W11}
water quality (n; adj)*
water year (n; adj)*²⁰
weigh in (v)^{W11}
weigh-in (n)^{W11}
weight frequency (n)*
weight frequency *or* weight-frequency (adj)*²⁵
weight-length (n; adj)*
well-being (n)^{W11}
well-known (adj)^{W11} [*but* very well known (adj)]
well water (n; adj)*
white water (n)^{W11}
white-water (adj)^{W11}
*x*wide²²
widespread (adj)^{W11}
wide-spreading (adj)^{W11}
willingness to pay (n)*
willingness-to-pay (adj)*
winter-kill (v)^{W11}
winterkill (n)^{W11}
worksheet (n+; adj*)

X-radiation (n)^{W11}
X-ray (n; adj; v)^{W11}
x-section (n)^{W11} [cross-section preferred]
x-year *or* *x* year^{19,20}

year-class (n)+¹⁴
year-class (adj)*
x-year-old(s) (n; adj)*⁷
yield per recruit (n)
yield-per-recruit (adj)
young of year *or* young of the year (n; adj)
[abbreviate as age 0/age-0]

zoea (n)^{W11} [plural: zoeae *or* zoeas]
zoeal (adj)^{W3}

Notes

In the following notes the term “open” refers to a compound word in which the components are separated by spaces (e.g., “point source”) and the term “closed” to a compound word in which the components are not separated by spaces (e.g., “warmwater”).

1. decision maker, *x* maker: Most compounds involving “maker” are open, but “policymaker” is an important exception.
2. decision making; *x*-ing: Temporary compounds formed from a noun and a gerund are generally open as nouns, but many permanent compounds are closed (e.g., bookkeeping). Adjectival compounds formed from a noun and a present participle are hyphenated before the nouns they modify (e.g., decision-making event), and a few permanent compounds are hyphenated after the noun as well (e.g., thought-provoking).
3. early: When used as an adjective, “early” can be hyphenated (e.g., early-life behavior). However, it may be better to rewrite some phrases (e.g., to use the adverbial form “early migrating salmon” instead of the adjectival form “early-migrant salmon”). Phrases such as “early life history” are not hyphenated because combinations like “life history” and “life stage” are treated as compound nouns (i.e., “early” modifies “life history”).
4. generating plant, generating station: These terms are open compound nouns, so modifiers preceding “generating” are not followed by hyphens (e.g., power generating station, electricity generating plant). (Note: A nuclear plant is not always a nuclear power generating plant [e.g., the Savannah River site produces nuclear material for defense rather than electricity]).
5. fin fold, lateral line: Names of body parts should be treated as open compound nouns and not hyphenated when used as adjectives.
6. mid, middepth, etc.: The word “mid” can be treated as an adjective, but AFS generally prefers to treat it as a prefix (e.g., midseason, midyear). It is hyphenated when it modifies a proper noun, date, or number (e.g., mid-August, mid-1988). If it is separated from its stem by other words, it can stand alone (e.g., mid to late March *but* early to mid-March).

7. *x*-year-olds: There is some inconsistency in Webster's dictionaries with respect to these terms. AFS uses the hyphenated form for the noun as well as the adjective.
8. cold brand, freeze brand: Although many compound nouns with the word "freeze" are hyphenated in Webster's dictionaries, nearly all compound nouns with the word "cold" are open; AFS has therefore chosen to leave all such terms open. Most compound nouns with the word "freezing" are open (e.g., freezing point), but most of the adjectival forms have hyphens (e.g., freezing-point measurement).
9. mass mark, etc: Webster's dictionaries leave most compounds with "mass" open when they are nouns but hyphenate the adjectival and verb forms.
10. purse-seine: The verb form is hyphenated for clarity, even though most of the verbs pertaining to capture techniques are closed (e.g., gillnet).
11. B cell, R plasmid, T cell: All cytological entities designated by a capital letter should be left open as nouns and adjectives (e.g., T cell deficiency, B leukocyte measurements) unless treated otherwise in W11 or hyphens are needed because of the construction (e.g., T-cell-dependent antigens).
12. radio tag, etc.: Webster's dictionaries close up all "radio" prefixes when they refer to radioactivity. When the reference is to the radio frequency spectrum, most such terms are open as nouns.
13. non-yolk-bearing, pre-yolk-sac: When a prefix is added to a hyphenated word, a hyphen should come after the prefix.
14. year-class: W3 lists "year class" as a noun, the only instance of an open "-class" or "- group" term. For editorial consistency, AFS hyphenates this term as a noun.
15. carbon-14, cobalt-60, uranium-235: Although these isotopes are open in W11, the standard practice in scientific writing is to place a hyphen between the spelled-out element name and the mass number. When the element symbol is used, the number should be a superscript placed before the symbol (e.g., ³²P).
16. first-order, second-growth: All rank-order compound adjectives are hyphenated.
17. age-group, size-group, length-cohort; type *x*, *x*-type: Do not hyphenate adjectives

of the forms “type *x*” and “group *x*” unless hyphenation is needed for clarity. Hyphenate all compound nouns and adjectives that end in “cohort,” “group,” or “type.”

18. *x* boat, *x*boat: Many boat types are open (e.g., charter boat, drift boat); others are closed (e.g., headboat, johnboat, motorboat, and speedboat). Open compounds can either be left open or hyphenated when used as adjectives.
19. angler-day, angler-hour, net-day; *x*-day, *x*-hour, *x*-kilometer, *x*-mile: Use a hyphen in these rate or effort terms and in specialized units of measure such as light-year (distance) and acre-foot (volume).
20. brood year, water year, etc.: These noun–noun combinations are measures of time (although they may be different from the calendar year); they are not efforts or rates (e.g., angler-hour) or units of measure (e.g., light-year), and like “fiscal year,” they are left open as nouns and adjectives.
21. bleb-like, virus-like; *x*like: Words formed with the suffix “like” are generally closed. However, “bleb-like” and “virus-like” are hyphenated for clarity and to follow common usage in the fish health literature.
22. ecosystem-wide; *x*wide: Words with the suffix “wide” are generally closed; however, CMS allows them to be hyphenated if the root word is long or of several (more than two) syllables (thus “ecosystem-wide” but “systemwide”).
23. compact disc, disc brakes, etc.: There is considerable variation in W11 in the use of “disk” versus “disc,” the former appearing to be the preferred spelling for most noncomputer terms except “disc brakes.” Use “disk” for electronic storage media and “disc” for optical and video storage media, and follow the dictionary for other words.
24. air bladder, gas bladder, swim bladder: These open compounds refer to the hydrostatic organ present in most fish. “Air bladder” and “gas bladder” are preferable to “swim bladder.” “Air sac” should be reserved for the air-filled space in birds.
25. length frequency, weight frequency: In keeping with the move toward not hyphenating noun–noun combinations used as adjectives, AFS no longer enforces its previous standard of hyphenating *x*-frequency words when they are used as adjectives. Hyphenated forms are acceptable, however.