

Algorithms used to Assign Wetland Ratings

This is a brief overview of the algorithms (hereafter algos) used to assign the draft final ratings to the NWPL. These algos were developed to work with the inconsistent input received during various rounds of voting and to treat all rounds as fairly as possible.

To assign draft final ratings, we the NWPL developed a system that relied heavily on the Regional Panels and factored in all of the rounds of voting. This weighted approach starts by calling ratings from the Regional Panels and Dr. Mohlenbrock (for species that lacked input) the “baseline” (R1, R2, R2.5, R4). Once the baseline vote was established, we applied the “post-baseline” input against the baseline in a descending (most recent vote) order: R7, R6(FR), R5, R3. The descending order was used either to fill in missing results or to attempt to break ties for a round, and it was weighted from the RP, to the public (FR), back to the RP again and then to the external experts. Finally, the National Panel (NP) did –five rounds, which accomplished four objectives: 1) resolved any species with unresolved baseline and post-baseline votes, 2) re-evaluated all ratings that changed from FAC to FACU and vice versa, 3) re-evaluated all ratings that changed more than two categories, and 4) re-examined bloopers and any missed species.

The following table shows the order in which the algorithms were applied. First, Algo 1 was applied, and then each subsequent algorithm was applied only to species that had not already had a rating assigned from a previous algorithm. The exceptions are R8, R9 R10, R11 and R12 where, in some cases, these may be explicit panel overrides.

| Algo # | Species resolved (all regions) | Percent resolved | Description |
|--------|-----------------------------------|------------------|--|
| 1 | 18,769 | 67.90% | RP baseline vote and no other votes; default 1996 used for species with no votes and “Don’t Know” votes |
| 2 | 6,022 | 21.80% | RP baseline vote and post-baseline vote(s) that match the baseline; default 1996 used for missing votes and “Don’t Know” votes; if there was no 1996 default rating or inadequate input, then the species was rated by Mohlenbrock in R2.5 |
| 3 | 1,302 | 4.70% | Baseline vote and R7 panel agrees with baseline even if R6_FR doesn’t, take R7 panel |
| 4 | 370 | 1.30% | Baseline vote of FAC or FACU, no R7 vote and R6_FR vote of UPL in region Atlantic and Gulf Coastal Plain, take baseline |
| 5 | 89 | 0.30% | Baseline vote of FAC or FACU, with R7 vote and R6_FR vote of UPL in region Atlantic and Gulf Coastal Plain, take R7 |
| 6 | 65 | 0.20% | Baseline vote and no R7 vote and an R6_FR vote of UPL in region Atlantic and Gulf Coastal Plain, take baseline |
| 7 | 220 | 0.80% | Baseline vote but different R6_FR, and R7 panel |

| | | | |
|----|-----|--------|---|
| | | | agrees with R6_FR, take panel (R7) vote |
| 8 | 89 | 0.30% | Baseline vote but different post-baseline, and R7 panel agrees with R3 (external botanists), take panel (R7) vote |
| 9 | 5 | <0.00% | No baseline vote, no R5 or R6_FR, and R7 panel agrees with R3 vote, take panel (R7) vote |
| 10 | 72 | 0.30% | Baseline vote but different post-baseline, and R7 panel voted, take panel (R7) vote |
| 11 | 3 | <0.00% | No baseline vote and only R7 panel voted, take panel (R7) vote |
| 12 | 1 | <0.00% | No baseline vote and only R6_FR and R7 panel voted, take panel (R7) vote |
| 13 | 4 | <0.00% | No baseline vote and R7 panel voted, take panel (R7) vote |
| 14 | 701 | | R8 vote, take draft final regardless of other voting |
| 15 | 672 | | R9, take as draft final regardless of other voting (including R8) |
| 16 | 136 | | R10, take as draft final regardless of other voting (including R8 and 9) |
| 17 | 87 | | R11 take as draft final regardless of other voting (including R8 – R10) |
| 18 | 34 | | Caribbean species |
| 19 | | | Rating assigned by CRREL- lumps, splits, and range extensions with no rating conflicts |
| 20 | | | Rating assigned by the RP |
| 21 | | | Rating assigned by the NP |

Key to the rounds:

R1 and R2 = Regional Panel (RP)

R2.5 = Mohlenbrock

R3 = external academic botanists

R4 = Butterwick, Kartesz, and Lichvar

R5 = former FAC- species ratings assigned in R3 were challenged by the RP

R6 = Federal Register (FR)(public input)

R7 = Regional Panel (RP)

R8 = National Panel (NP) for unresolved species

R9 = National Panel (NP) for species that shifted from FAC to FACU or vice versa, or shifted two ratings

R10 = National Panel (NP) for bloopers and species reported in written Federal Register comments

R11 = Regional (RP) and National Panels (NP) review R10 ratings

R12 = National Panel (NP) assign ratings to 34 species without final ratings in the Caribbean Region

R13 = Nomenclature update for 2013 including lumps, splits, newly proposed, and geographic range extensions.