New Error Checks and Warnings in National and Subnational Tracking Records

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# National and Subnational Scientific Name (Nname and Sname)

RULE: National and Subnational Scientific Names (Nnames and Snames) must match the Global Scientific Name or a Global Synonym in the related Global Element Tracking record (EGT).

RESULT OF VIOLATING RULE:

TEMPORARY: ATTEMPTING TO SAVE RESULTS IN A WARNING MESSAGE WITH THE OPTION TO SAVE ANYWAY.

FUTURE: ATTEMPTING TO SAVE RESULTS IN AN ERROR MESSAGE AND SAVE FAILS.

In the future, a record cannot be saved unless the Nname or Sname matches the Gname or a Global Synonym. We are waiting to enforce this rule until local database can easily retrieve EGT updates from the central database which will have new Gnames and Global Synonyms.

# Rank and Distribution Data Consistency

The Rank and Distribution Data fields describe different aspects of an element’s presence in a nation or subnation and should support, not contradict, each other. In order to reduce internal inconsistencies in the data, “Rank and Distribution Data Consistency” has been added to the National Element Tracking (ENT) and Subnational Element Tracking (EST) records for species. It appears directly under Distribution Data grid.

The field calculates and displays the “DDF” (Distribution Data Function) value using Rank, Hybrid, and Distribution Data and indicates whether the combination of values is internally consistent. Biotics Online Help contains complete information about the field. This document specifically describes validation and warnings Biotics provides for the possible values.

| **Rank and Distribution Data Consistency Value** | **Description** | **Result of Save Attempt** |
| --- | --- | --- |
| **VALID DATA COMBO** | The combination of at least one Distribution Data row, Rank, and the Hybrid Without Conservation Value indicator value in this record is valid. | RECORDS WITH THIS VALUE CAN BE SAVED |
| **MULTIPLE RANKS - UNABLE TO EVALUATE** | The Rank field contains a comma, which indicates more than one Rank is applied to this element in this location (e.g., Breeding and Nonbreeding ranks are different). The function does not evaluate these records for valid combinations. | RECORDS WITH THIS VALUE CAN BE SAVED |
| **NOTHING VALID OR INVALID FOUND** | The combination of Distribution Data, Rank, and the Hybrid Without Conservation Value indicator cannot be validated or invalidated. | RECORDS WITH THIS VALUE CAN BE SAVED |
| **INVALID DATA COMBO** | The Distribution Data, National or Subnational Rank, and the Hybrid indicator value are not internally consistent. | ATTEMPTING TO SAVE A RECORD WITH THIS VALUE GIVES ERROR MESSAGE AND SAVE FAILS |
| **INVALID DATA COMBO - HYBRID WITH RANK NOT SNA** | The Hybrid Without Conservation Value field in the ENT/EST is checked but the Rank is not NNA/SNA. | ATTEMPTING TO SAVE A RECORD WITH THIS VALUE GIVES ERROR MESSAGE AND SAVE FAILS |
| **INVALID - NO DISTRIBUTION DATA FOUND** | There are no distribution data recorded in the ENT/EST. | TEMPORARY: RECORDS WITH THIS VALUE CAN BE SAVED  FUTURE: ATTEMPTING TO SAVE A RECORD WITH THIS VALUE GIVES ERROR MESSAGE AND SAVE FAILS |
| **INVALID - ANIMAL RECORD MISSING POPULATION VALUE** | For animal records only, the Population value is null for one or more rows in the distribution data grid. This field is required for each row entered for all animal records. | ATTEMPTING TO SAVE A RECORD WITH THIS VALUE GIVES ERROR MESSAGE AND SAVE FAILS |
| **INVALID RANK SYNTAX** | Rounded Rank is INVALID. The record cannot be assessed for Rank and Distribution Data Consistency. | ATTEMPTING TO SAVE A RECORD WITH THIS VALUE GIVES ERROR MESSAGE AND SAVE FAILS |
| **VALID DATA COMBO - BUT REVIEW SUGGESTED** | None of the combinations of Distribution Data row, Rank, and the Hybrid Without Conservation Value indicator may be invalid but the combination is so rarely applicable that it may be recorded in error. Comments in Distribution Data Comments should help explain the recorded values if they are recorded intentionally. | ATTEMPTING TO SAVE A RECORD WITH THIS VALUE RESULTS IN A WARNING MESSAGE WITH THE OPTION TO SAVE ANYWAY |

## **Distribution Data and Rank Rules - Quick Reference**

**Refer to the DDF Users Guide for complete business rules.**

### **In summary, combinations are identified as INVALID if they break any of the following rules:**

1. Every EST (or ENT) record must have at least 1 row in the distribution data grid. *Violating this rule is temporarily allowed.*
2. If Rank is a number rank, there must be one row with Native/Unknown, Regular, Confident, Present.
3. If Rank is SH (or NH), there must be one row with Native/Unknown, Regular, Confident, Unknown.
4. If there is a distribution row with Native, Regular, Confident, and Unknown, the rank must be SH, SNR, or SU (or NH, NNR, or NU).
5. If Rank is SX (or NX), there must be a distribution row with Native, Regular, Confident, Absent.
6. If there is a distribution row with Native, Regular, Confident, and Absent, the rank must be SX or SU (or NX or NU).
7. If Regularity is Accidental, rank must be SNA (or NNA).
8. If Distribution Confidence is Reported but Unconfirmed, rank must be SNA or SU (or NNA or NU).
9. If Distribution Confidence is any value other than Confident or Reported but Unconfirmed, Rank must be SNA (or NNA).
10. If Distribution Confidence is not Confident, Current Presence/Absence cannot be Present.
11. If Distribution Confidence is Reported but Doubtful then Current Presence/Absence must be Unknown.
12. If Distribution Confidence is Never was There then Current Presence/Absence must be Absent.
13. If Current Presence/Absence is Present, Distribution Confidence must be Confident.
14. All zoological elements (animals) must have a Population value for all Distribution rows.
15. Where a single Rank ends in B, N, or M, there must be a corresponding row in the distribution table where Population is Breeding, Non-breeding, or Transient, respectively.
16. If there is a distribution row where Population is Breeding, Non-breeding, or Transient and there is no row where Population is Year-round and the Rank is not SNA (or NNA), then the Rank must have a B, N, or M modifier as appropriate.
17. Where the element is flagged as a ‘hybrid without conservation value’ at the subnational level, the Rank must be SNA (or NNA).
18. If distribution data and hybrid indicator suggest a rank is applicable (Native – Regular – Confident), the Rank must not be SNA (or NNA), unless a breeding or nonbreeding population is Native, Regular, Confident but there are no definable EOs; this combo is considered valid but review suggested.
19. If distribution data indicate a rank is not applicable (Exotic, Accidental, not Confident), then rank must be SNA (or NNA). If Distribution Confidence is Reported but Unconfirmed, rank can be SNA or SU (or NNA or NU).

### Combinations are identified as VALID DATA COMBO - BUT REVIEW SUGGESTED under the following conditions:

If the combination is reviewed and found to be necessary and Distribution Comments explain the situation, check the box indicating review is complete and re-save.

1. Native, Regular, Confident, Breeding or Nonbreeding Population – Rank is SNA: These populations should have an SNA rank only if the taxon occurs often in jurisdiction but not at a regular location so there are no definable EOs.
2. Origin Unknown – Rank is a Number: When the origin of the element cannot yet be determined to be native but is not known conclusively to be exotic either, a number rank is allowed if indicating rarity if found to be native is important.
3. Origin Unknown – Rank is SNA: If an element is not confirmed to be exotic, it could eventually be found to be a conservation target, therefore ranking it SNA rank is not recommended (SNR or SU are suggested) but allowed with review.
4. Regularity Unknown – It is inadvisable to create tracking records for situations where the element cannot at least be confirmed as an accidental. It is possible that the regularity of the element in the jurisdiction cannot be confirmed as regular so the Unknown value is allowed with review.
5. Current Presence/Absence is Absent (with Native, Regular, Confident) – Rank is SU: Rank should be SX, however, SU allowed (e.g., in cases with questionable taxonomy or identification) with review.

# Other Distribution Data Warnings

## Regularity is not “Regularly occurring”

Creating tracking records for elements not confirmed to be regularly occurring in a jurisdiction should be limited to special cases, including Accidental species. Since “Unknown” or “Accidental” are often entered in error, attempting to save records with this value will result in a warning with the option to save after confirmation.

## Distribution Confidence is changed from “Confident” to “Reported but False”

Entering a Distribution Confidence value of “Reported but False” often is erroneously used to indicate a taxonomic revision. Attempting to save a record with this change will result in a warning with the option to save after confirmation.

The value “Reported but False” should be used for cases where the taxon with the circumscription identified by the concept reference has been reported for the nation or subnation in error due to misidentification of the element or mislabeling or misinterpretation of collections. If the circumscription of a taxon has been revised and the taxon with the newly accepted concept does not occur in the jurisdiction, the record for taxon with the rejected concept (which occurs in the jurisdiction following that classification) can be deleted from the local database. If it is necessary to keep a record of the fact that the currently accepted taxon does not occur in the nation or subnation, a new record for the taxon with the accepted concept can be created and “Reported but False” can be entered.

# Checking Subnational Distribution Entries against National Data

These conditions produce a warning message upon saving with the option to save after confirmation. Entering supporting information in EST Distribution Comments will facilitate the update or correction of national data.

**Origin – EST Native, ENT Exotic**

Saving an EST where Origin = Native (with Distribution Confidence Confident) but the parent ENT Origin is Exotic (and Confident) produces a warning message.

**Regularity – EST Regular, ENT Accidental**

Saving an EST where Regularity = Regular (with Distribution Confidence Confident) but the parent ENT Regularity is Accidental produces a warning message.

**Distribution Confidence – EST Confident, ENT not Confident**

Saving an EST where Distribution Confidence = Confident but the parent ENT does not have a row with Distribution Confidence of Confident produces a warning message.

**Current Presence/Absence – EST Present/Unknown, ENT Absent**

Saving an EST where Current Presence/Absence = Present or Unknown but the parent ENT Current Presence/Absence is Absent produces a warning message.