

Option 1: “Detected” field indicates the element IS extant, and a new field is proposed to indicate if there is OLD evidence.

Field Values: Yes / No

“Detected” Field Guidance:

YES means there is evidence (such as direct observation of an element or observation of recent sign) that the element was extant on the visit date as determined by a biologist.

NO means there is insufficient or no evidence that the element was extant on the visit date.

Additional Recommendation: change field’s display name to “Detected-Extant”

Proposed new field (two options):

#### 1a. Detected-Any Evidence (Y/N/null)

Indication of whether there was any evidence (historical or recent) of the element’s presence at the location.

*Field Guidance:*

Select **Yes** if there was evidence of any kind.

Select **No** if there was no evidence (indicates negative data). *Historical/old sign is therefore indicated by Detected-Extant = No and Detected-Any Evidence = Yes.*

#### 1b. Detected-Historical Evidence (Y/N/Uncertain/null)

Indication of whether there was historical/old evidence (sign) of the element presence at the location (e.g., a subfossil shell or an old disused nest).

*Field Guidance:*

Select **Yes** if there was historical sign.

Select **No** if there was no historical sign. Select Uncertain if the age of the sign cannot be determined. Historical evidence means sign (such as sub-fossil mussel shells) that are of an age that indicates the element was present in the past, but that do not indicate that the element was extant on the visit date, based on biologist expertise.

Advantages:

- a) Programs will not have to change how they are currently filling the Detected field (presuming they are following current field guidance).
- b) Even if the new proposed field does not get implemented, the current field can capture the most important classification of data – Visits where the element is believed/known to be currently or recently extant.
- c) Calculation of Lastobs could potentially be automated from the Detected-Extant field.
- d) Adding proposed field 1b would allow full distinction between presence of recent evidence only, old evidence only, both new and old evidence, evidence of uncertain age, and no evidence at all.

Disadvantages:

- a) Data managers will have to decide how to assign Detected/Not Detected for incoming records of sign in situations where a biologist is not available to assign the value. Because sign varies by taxa, it may be difficult for data staff who are not experts in the relevant taxa to judge what constitutes “evidence that the species was extant”.
- b) Until one of the new fields is added, programs cannot separate true negative data from “was here but not recently” data.
- c) In Option 1a, there is no clear way to deal with sign of unknown age.
- d) In Option 1a, there would be no way of determining if both current and old evidence were found at the same location and visit date (e.g., both subfossil and live mussel shells detected, which may indicate a well-established population).

Option 2: “Detected” field indicates the element is OR WAS extant, and a new field is proposed to indicate if there is Extant evidence.

Field Values: Yes / No

“Detected” Field Guidance:

YES means any evidence of current or past element presence at the location on the visit date (i.e., the observer saw/heard old or new evidence).

Proposed new field: Extant (Y/N/Uncertain/null)

**YES** means there is evidence (such as direct observation of an element or observation of recent sign) that the element was extant on the visit date as determined by a biologist.

**NO** means there is no evidence that the element is extant on the visit date.

**UNCERTAIN** means there is ambiguous evidence that the element was extant on the visit date.

Advantages:

- a) Choosing Yes or No for the Detected field is more straightforward than in option 1, because no decision is needed regarding if the sign is sufficient to constitute “evidence that the element was extant”.
- b) A calculation of LastObs Date using the most recent Visit Date where Extant = True will almost always be accurate.
- c) The proposed new field allows indication of uncertainty when the evidence is ambiguous.

Disadvantages:

- a) Most programs will have to change their current Detected values on records with historical/old evidence (previous guidance was they should be “No”, but under this option they should be “Yes”).
- b) Until the new field gets created, the only way to store sign age details is to make a note in the Visit Notes (e.g. “Not extant.” or “Old sign.”).
- c) If the new field is not created (or until it is), calculation of LastObs Date using the most recent Visit Date where Detected is True will likely be in error for any Visits with old sign.

Option 3: No change other than to accept the proposed new field description: “Indicate Detected if there is evidence of the element being extant at the location on the Visit Date, as decided by the biologist” (i.e., the observer saw/heard the element or recent sign).

Advantages:

- a) No technical changes are needed.
- b) No usage changes needed if this is how you were already using the field.
- c) Calculation of Lastobs can be automated from Detected Yes visits.

Disadvantages:

- a) There remains no way to separate records that are truly negative data from those that have old sign.
- b) There remains no way to indicate uncertainty about whether the element was extant, or that the question has not yet been assessed for that visit.