



## HERPETOFAUNA DIVERSITY INDEX REPORTING FORM INSTRUCTIONS FOR CONSULTANTS

### 1. Species richness assessment

**1a.** Keep a list of all the species encountered over the entire project and multiply the total number of species by the multiplier for the state in which the survey was conducted. The multiplier value is determined by taking the number of species that RML has estimated would receive a perfect score<sup>^</sup> and normalizing it to 80. For example: your property is in Indiana and 20 different species would elicit a perfect score, so you would use a multiplier of 4 (80/20). There were 9 species observed on the property so the final value for this metric would be 36 (9\*4).

<sup>^</sup>See map on following page (Figure 1) to determine the perfect score value for your survey site.

**1b.** Often qualified herpetologists will see all of the habitat requirements for a particular species present at a site but not be able to make a visual or audial detection of that species. This line gives you room to add points for this situation. Add one point for each species that you suspect to be present on the property at some point in the year.

**1c.** The sampling effort metric attempts to standardize sampling efforts, not for scientific comparisons, but to give RML rankings more legitimacy. This estimation allows for a customer (private landowner) to be able to receive an assessment at a lower cost (fewer field visits), but rewards a more thorough assessment.

- A survey period is a site visit or one use of traps during a season (i.e. traps could be out for a few days but it is still one sampling event during the season)
- An extra point is available here for utilizing different survey methods.
- Audial and visual count as one method.

**2. Assessing health by noticing reproduction:** Use your professional judgment aided by these indicators:

0 = No Signs	3 = young observed
1 = Eggs observed	4 = young observed of uncommon species
2 = Eggs of uncommon species observed	5 = several species with good age diversity observed

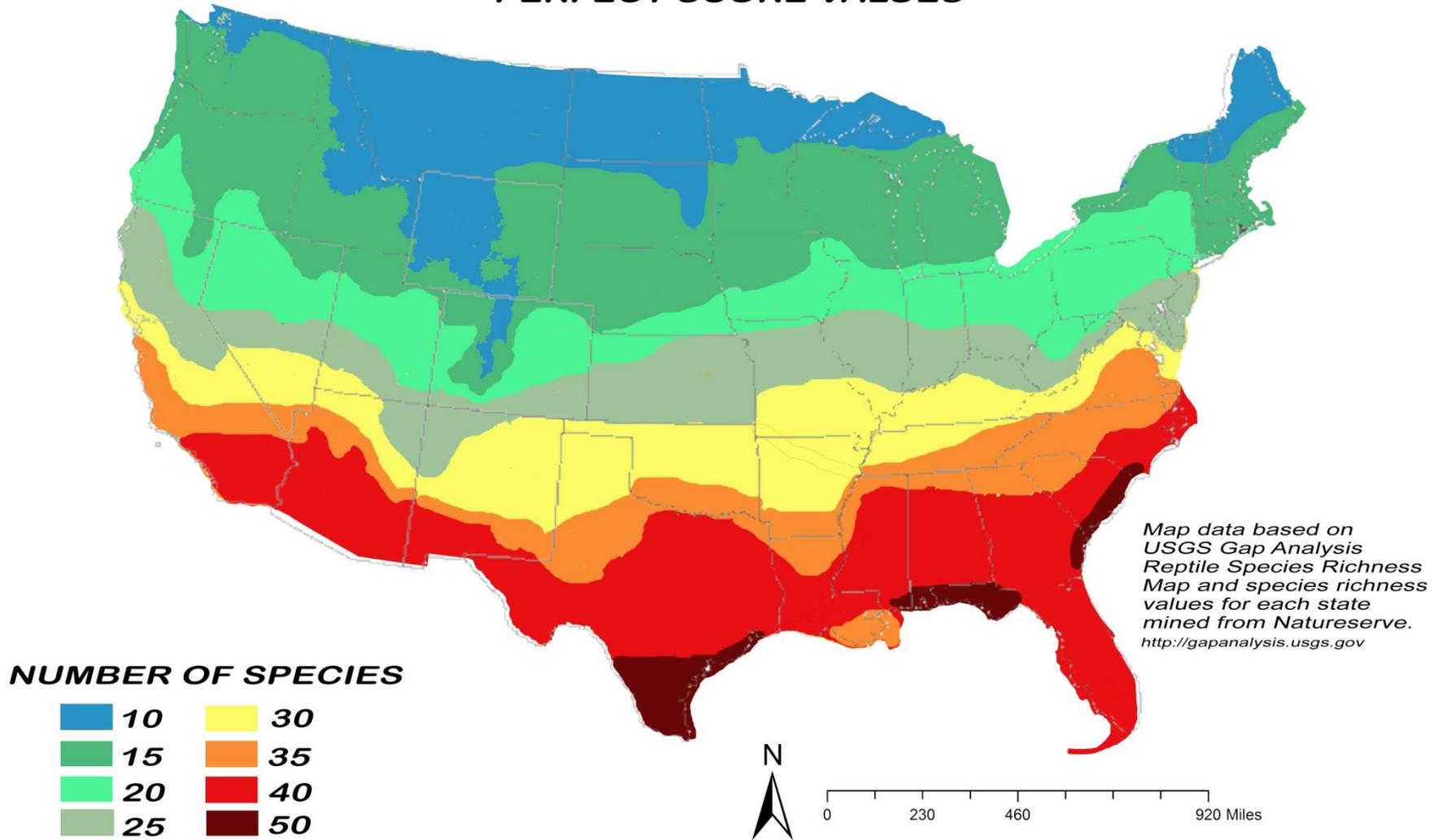
**3. Assessing density:** Comparing the total number of detections made relative to other similar properties observed, or from the literature (this is subject to the biologist, thus only two points are available).

**4. Property Fragmentation:** Assess the health of the herps on the property by examining the future threats posed by fragmentation (i.e. small population size dynamics).

- As a general rule if only “one side” of the property has a neighboring property with natural land then there is little continuous property, two sides is moderate, and three sides is continuous.
- For RML, developed land is land in human use (i.e. agriculture, yard, outbuildings). Natural lands are those not in active use (for at least three years).
- For adjacent old fields and fields used only for haying, you can count them as continuous habitat if it is not an abrupt community change (i.e. Northern Mesic Forest on customer’s property and old agriculture field adjacent). Use your professional opinion.

**5. Rare Species:** This metric brings special attention and RML value to species of conservation concern.

**RATE MY LAND HERPETOFAUNA DIVERSITY  
PERFECT SCORE VALUES**



**Figure 1:** A map of the United States showing the number of species that would elicit a perfect score for metric one on the Rate My Land Herpetofauna Diversity Index. Find your survey site and divide 80 by the perfect score value to get your score. Zones are arbitrary; consultants can use their professional opinion and move up or down one level when the survey location is near a perfect score boundary.