

**RATE MY LAND (RML) ASSESSMENT**  
**BIRD DIVERSITY INDEX REPORTING FORM**  
*To be completed and signed by a biological consultant*

<u>Category</u>	<u>Score</u>
<i>1a. Number of species recorded</i> Multiply total species recorded by unique value (see instructions for value) Perfect score value used for survey site _____.	____/80
<i>1b. Estimation of sampling effort applied</i> One site visit during breeding season and one during migratory season = 1 pt. Three site visits, at least one during breeding season = 2.5 pts. Four site visits, at least two during breeding season = 5 pts. Multiple (>4) site visits during migration and breeding seasons = 10 pts. Subtract a half point for each survey with unfavorable weather (wind/precipitation) Survey methods _____	____/10
<i>2. Percentage of species suspected to be nesting</i> 10-15% = 0 pts. 16-25% = 1.5 pts. 26-35% = 3.5 pts. >36% = 5 pts.	____/5
<i>3. Invasive bird species and/or feral cats (including pets let outside).</i> Subtract one point for each	____/0
<i>4. Birds observed at exceptionally high densities</i> No = 0; Maybe = 1; Yes = 2	____/2
<i>5. Property Fragmentation</i> No or little continuous habitat on neighboring properties AND development significantly fragmenting property within = 0 Moderate continuous habitat on neighboring properties OR development only moderately impacting property within = 1 Moderate continuous habitat on neighboring properties AND development only moderately impacting property within = 2 Continuous habitat on neighboring properties AND no impact from development within property = 3	____/3
<i>6. Species of special concern</i> Add one point for every federal or state listed species	_____
<b><u>TOTAL SCORE</u></b>	_____/100

Company Name:

Consultant signature:

Company contact—email: \_\_\_\_\_ Phone \_\_\_\_\_

Please return completed form with any accompanying information to:

Email: [ratemyland@gmail.com](mailto:ratemyland@gmail.com) OR Mail: Information Manager, Rate My Land, 1331 Atkins Rd., Petoskey, MI 49770

## **BIRD 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 Missouri and 90 species elicit a perfect score, so you would use a multiplier of 0.89 (80/90). There were 80 species observed on the property so the final value for this metric would be 71.2 (80\*0.89).

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

**1b.** 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.

- At least two visits must be made to a site to receive points
- Attempts to survey during ideal conditions are sometimes foiled, but subtracting a half point as advised attempts to account for the difference the weather might play from one assessment to the next.
- Fill in key words to explain survey methodology.

**2. Assessing health by noticing reproduction:** A species may be observed on the property during breeding season, but may not be using the property for breeding. Indicators of breeding can be nest building, observing fledglings, courtship displays, etc. Count the number of species with a positive indication of breeding and divide that number by the total species richness for the property.

**3. Assessing non-native species and cats:** Invasive bird species should be accounted for as they are not in metric 1a. Since housecats pose serious threats to bird populations, observing one roaming on the property (landowners or not) while conducting a survey deducts a point (up to 3 points for cat observations).

- Invasive bird species (for RML) = Rock Pigeon, Mute Swan, House Finch, Monk Parakeet, House Sparrow, Eurasian Collared Dove, European Starling, Brown-headed Cowbird (except in NE, SD, WY).

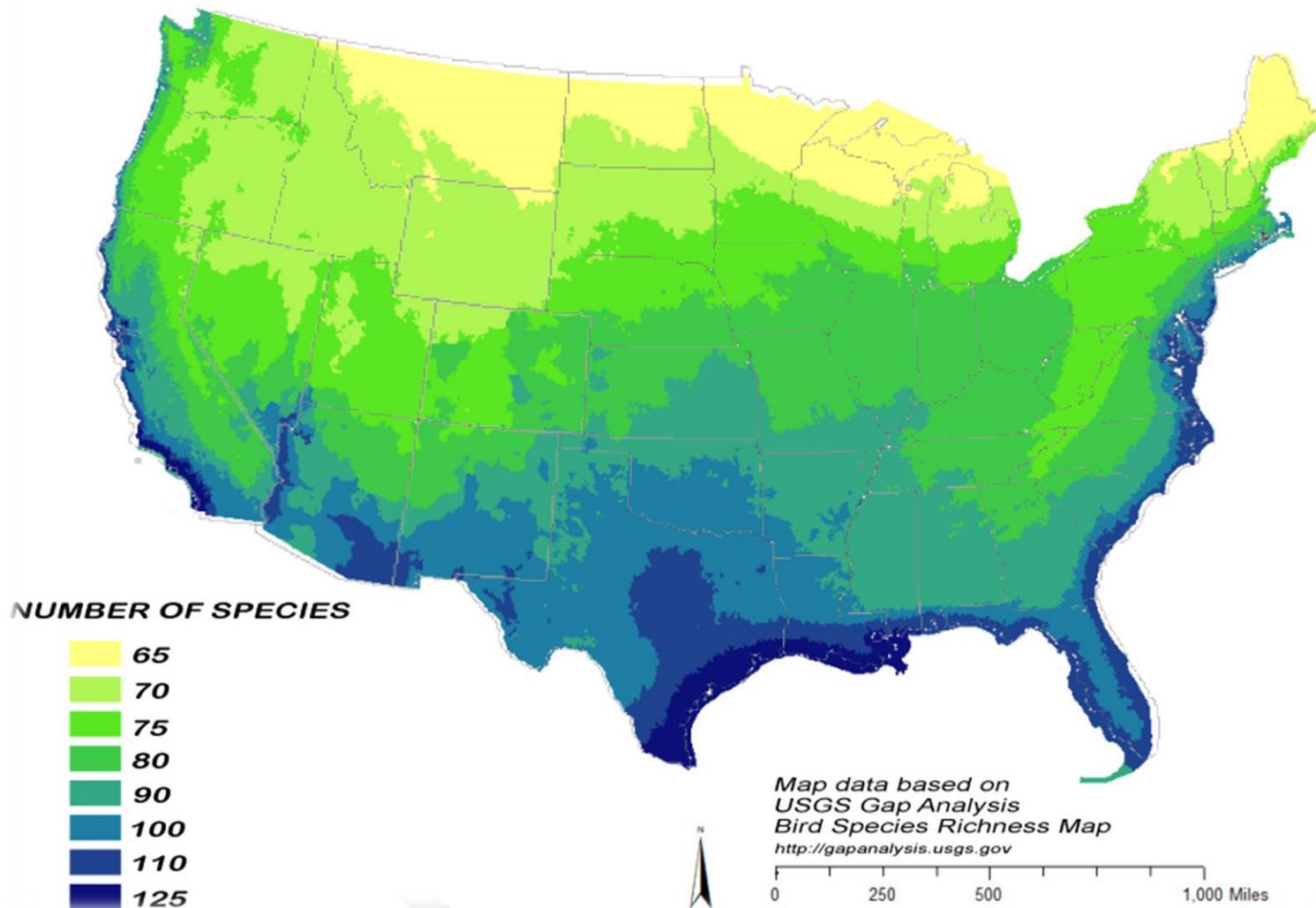
**4. Assessing density:** Compare the total number of detections made relative to other similar properties observed, or from the literature (because of the subjectivity, only two points are available).

**5. Property Fragmentation:** Assess the health of the birds on the property by examining the future threats posed by fragmentation (i.e. small population size dynamics and impacts of edge effects).

- 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 that 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.

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

## ***RATE MY LAND BIRD 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 Bird 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.