

# Oregon Roundtable on Sustainable Forests

## Preliminary Evaluation of Indicator of Sustainable Forest Management



### ***E.c.: Forest plants and animal species at risk***

Current desired trend/target: Decreasing number of Oregon native forest plant and animal species at risk (extinction, extirpation, endangered, threatened or potentially endangered or threatened).

The current data report for this indicator can be accessed at:  
<http://www.oregon.gov/ODF/indicators/indicatorEc.shtml>

### **Evaluation Summary:** <sup>1</sup>

#### **Key Roundtable findings**

- The purpose and intent of this indicator are clear.
- The Board should revise the statement in the 2007 technical write-up for this indicator that better reflects the methodology being used.
- Generally, the protocol for indicator data collection is clear and technically sound.
- A more systematic data collection system would be desirable.
- Clarify in indicator title or trend statement that species at risk determinations are being made at a statewide scale and are aspatial, but at risk species presence could be reported at the ecoregion or smaller scale.
- It is unclear what would trigger changing a “mixed” condition rating to “good” or “poor.” It appears the condition could always be mixed. Need to reassess and define thresholds.
- More clearly describe the timeframe that the data gathering occurred.
- Indicators E.a., E.b., and E.c. need to be examined together as an integrated set addressing native plant and animal population and habitat conservation.

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<sup>1</sup> This is a summary of the Oregon Roundtable on Sustainable Forests discussion and conclusions regarding the staff report on an Oregon Indicator of Sustainable Forests Management. The summary is organized around nine questions identified by the Roundtable as being central to evaluations of all 19 indicators. It reflects the input from Roundtable participants who attended the September 30, 2010 meeting where the indicator was discussed and from an electronic survey of those participants following the meeting. The summary is based on interpretation of the Roundtable discussions by the seven-person Roundtable Leadership Group, with the assistance of Oregon Department of Forestry staff.

*Conclusions may not have been reached by the Roundtable for every evaluation question. The summary should not be considered as expressing a consensus of the meeting participants or the Roundtable in general. However, this information will be immediately useful to the technical staff working to implement and improve future indicator data collection and reporting and to the Board of Forestry and other Oregonians desiring to use the indicator as one tool in assessing Oregon’s progress towards sustainable forest management.*

*It is anticipated that the Roundtable will proceed with discussions on all the indicators and will then discuss the body of indicators as a whole – looking for common themes and synthesizing conclusions about the indicators project. Therefore, Roundtable conclusions for this indicator may be revisited and revised at a later date.*

## Additional Roundtable comments organized by indicator evaluation questions

### 1. Is the purpose and intent for the indicator clear?

- Yes, the purpose and intent of this indicator are clear.
- This and water quality (D.a.) may be the best indicators of sustainability that we have reviewed so far. We have to decide if the fish and amphibians have reached a point of catastrophe and, if not, what level would be that point.
- The Board should revise the statement in the 2007 technical write-up for this indicator that states reporting is limited to species at risk as “recognized by federal and state resource management agencies.” That is not the methodology being used. Reword to read, “*This indicator will provide statewide tabular and map information on the status of plant and animal species recognized as at risk by the NatureServe/Natural Heritage rankings because of rarity or because other factors demonstrably make them very vulnerable to extinction.*”

### 2. Is the protocol for indicator data collection clear and technically sound?

- Generally, the protocol for indicator data collection is clear and technically sound.
- A more systematic data collection system would be desirable.
- There are questions about how diligent efforts are to detect new species and to report data on at risk species. New species are monitored for three years before added to species at risk reports so their status can be assessed.
- We know where the reported species are but lack information on the extent to which species are unreported or underreported.
- Federal “survey and manage” species monitoring protocols may show that some species initially perceived as rare are actually more prevalent than first thought. Survey and manage species tend to be fairly common and therefore not at risk.
- The Oregon Biodiversity Information Center (OBIC) maintains a list of five species risk categories (see <http://orbic.pdx.edu/index.html>). For this indicator, species assigned to OBIC List 1 or List 2 are considered “at risk.” List 1 contains taxa that are threatened with extinction or presumed to be extinct throughout their entire range. List 2 contains taxa that are threatened with extirpation or presumed to be extirpated from the state of Oregon. These are often peripheral species which are of concern when considering species diversity within Oregon's borders. They can be very significant when protecting the genetic diversity of a taxon. OBIC regards extreme rarity as a significant threat and has included species which are very rare in Oregon on this list.
- There was concern about use of the five-tiered risk ranking. For some species at risk, like the northern spotted owl, we have access to much more detailed, rigorous information that may indicate a change in trend long before there is a change in rank. Can this more detailed data be incorporated into the indicator when it exists?
- We have good confidence in the information of where species have been found, but less knowledge about where they could be. We need to better understand how species ranges might change with management, disturbance, and climate change.
- Developing potential habitat range maps is possible but expensive. Such maps exist for some species in the Coast Range.
- The indicator is adequate in a quantitative sense--eventually it probably should have more qualitative

or species-specific information.

- The protocols for species assigned in any particular level were not entirely clear (but it sounds like they exist).
- Seems like results will always be "mixed" with the way we have set up our definitions.
- The indicator may lead to false assumptions. For instance, what about species that are already so rare that they are endangered? It takes several years and peer journals to get a newly discovered species on the list.

### 3. Are indicator data being reported at the appropriate spatial and temporal scales?

- Currently, data are only reported at the statewide scale and aspatial, but at risk species presence could be reported at the ecoregion scale or down to the 6th field hydrologic unit. More work is needed but maps for every at risk species are already online. Risk rankings would remain a statewide determination.
- The report should more clearly state that the data is reported at a statewide scale.
- Species at risk status is updated every three years.
- Clarify that the data series for this indicator begins in 2001, not 2004.
- The indicator could be improved if it was reported at an ecoregional scale, especially if there were more species-specific information included.
- The indicator is artificially limited by the borders of Oregon.

### 4. Has the Department appropriately assessed the quality of the indicator information?

Original indicator report conclusion

Conclusion following Roundtable evaluation

*Information = Adequate*

*Information = Adequate*



- Yes, the Department has appropriately assessed the quality of the indicator information. However, monitoring is irregular. Systematic and periodic review of the information would add strength to the indicator
- Consistent state funding is needed for regular comprehensive surveys. Current reporting is highly dependent on federal funds.
- We are not systematically looking everywhere. Species could be present where we are not looking. On the other hand, perfect knowledge would likely not significantly change reports on general statewide results.
- The mixed results don't truly capture the catastrophic situation facing amphibians and fish. There needs to be an unequivocal "poor" rating if any category of species of concern hits a pre-determined level (20 percent proposed)

**5. Has the Department appropriately assessed the conditions measured by the indicator?**

Original indicator report conclusion  
*Condition = Mixed*



Conclusion following Roundtable evaluation  
*Condition = Poor*



- There was agreement with the staff recommendation to change the Condition rating to “Poor.”
- It is unclear what would be trigger changing a “mixed” condition rating to “good” or “poor.” It appears the condition could always be mixed. Need to reassess and define thresholds.
- Currently two of the six taxonomic groups will have 25 percent of the species at risk. It is hard to argue that conditions are not poor.
- What if a very high proportion of one species class and another is very poor?
- In a natural system, what percentage of species might be “at risk?”
- The biological elements, i.e., plants, mammals, etc, should be separately evaluated, so plants, mammals, birds, invertebrates would be “Fair”, and Herpetofauna and Fish would be “Poor.”
- We should be very concerned about our fish and amphibians, but instead are reporting back mixed results. How bad does it need to get to prompt action? The current condition indicates a problem and it is buried in the "mixed" results.

**6. Has the Department appropriately assessed the current trend measured by the indicator, when compared to the Desired Trend Statement?**

Original indicator report conclusion  
*Trend = Mixed*



Conclusion following Roundtable evaluation  
*Trend = Mixed.*



- The trend remains “Mixed” but, as with “Condition” ratings, more specific criteria needed to establish when a trend would be considered “Improving” or “Deteriorating.”
- More clearly describe the timeframe that the data gathering occurred.
- We need to update reports to include entire 2001 through 2010 data series.
- Clarify in indicator title or trend statement that species at risk determinations are being made at a statewide scale. Perhaps revise the desired trends statement to read: “Decreasing number of Oregon native forest plant and animal species at risk at the statewide scale.”
- Consider assessing trends separately by species groups.
- Trend should be disaggregated as well.
- Mixed trend ignores the condition of some of the categories (fish and amphibians). While some of the categories showed improvement, others indicate a continued problem.
- It will always be a concern if there are species at risk. Of more interest to policy-makers and the

public will be the trend information. Are things getting better or worse? Describe which categories are improving and which are deteriorating.

**7. Can a case be made that other technical information should be considered as a supplement or an alternative to the information already provided for the indicator?**

- See comments above about the need for more systematic spatial and temporal data gathering.
- Question: Are DEQ aquatic macro-invertebrate data being incorporated? Answer: If data are not at the species level it may not be useful.
- There may be additional data bases that could be evaluated for their disinterest and employed to enrich this indicator.

**8. Do you believe there is an adequate level of institutional commitment and resources allocated for continued full implementation and reporting of this indicator into the future?**

- Generally, yes there is an adequate level of institutional commitment and resources allocated for continued full implementation and reporting of this indicator into the future. The Oregon Biodiversity Information Center plans to keep doing the compilation work. The people who provide observation data may grow fewer as the bad economy persists.
- But some believe ongoing funding is definitely a concern. Continued and increased state support is needed for this work and to encourage more systematic monitoring.

**9. What improvements would you like to see in future reporting for the indicator?**

- Consider reporting the information at an ecoregional scale.
- Indicators E.a., E.b., and E.c. need to be examined together as an integrated set addressing native plant and animal population and habitat conservation.
- Could spatial information generated through this indicator possibly lead to forest practice requirements that are more site-specific to areas where species actually present more broad-brushed regulatory approaches? Consider future Oregon Conservation Strategy goals expressed by ecoregion. Look at what the Oregon Natural Heritage Program is already doing.
- Similar work is not yet being done on non-forest species.
- Integrate additional available information from other sources
- Added capacity will be needed if there is interest in reporting at sub-state scales.
- Establish a "red flag" level that if hit would indicate a poor condition and trend. Recommend a 20 percent threshold (which means fish and amphibians are already at the red flag level). The Board should be taking action immediately and this report should indicate that urgent need for action.
- The Roundtable should have spent more time on this indicator and made stronger recommendations to the Board of Forestry.
- We should focus on overall species trends and not quibble over the status of a few species. We are losing species and ecosystem services and biological diversity are in decline. To not see the legacy of these trends and instead discuss a species here or there doesn't work.
- There was a concern that administrative reporting requirements of the Department of Forestry on sensitive resource sites and species at risk are not being met and that such would be valuable in informing this indicator. The evaluation report should reflect that.

### Oregon indicators of sustainable forest management ratings explanations

#### Indicator Condition:



**Good**

Desired trend or target is being achieved



**Mixed or Fair**

Conflicting factors are affecting the status in both positive and negative ways



**Poor**

Desired trend or target is not being achieved

#### Indicator Trend:



**Improving**

Current status is an improvement compared to previous data



**Mixed, Uncertain, or No Change**

There are either conflicting (mixed) trends, trend direction is uncertain, or there is no significant change compared to previous data



**Deteriorating**

Current status is a deterioration compared to previous data

#### Quality of Indicator Information:



**Adequate**

Data coverage, frequency, currency, sources, and reliability are sufficient to draw conclusions with high confidence



**Partial**

Data coverage, frequency, currency, sources, and reliability are of mixed quality which affects the ability to draw conclusions



**Inadequate**

Data coverage, frequency, currency, sources, and reliability are of insufficient quality to draw conclusions