



Ms. Lynda Yonge, Director, Wildlife Division
Dept. of Environment and Natural Resources
Government of the Northwest Territories
PO BOX 1320
YELLOWKNIFE, NT X1A 2L9

Email: Lynda_Yonge@gov.nt.ca

Dear Ms. Yonge:

Clarification of the Assessment of Northern Leopard Frog

The Species at Risk Committee (SARC) reviewed your request for clarification of the assessment of Northern Leopard Frog at a meeting on 18-19 February 2014. SARC would like to thank the Conference of Management Authorities (CMA) for the opportunity to present assessment findings at its meeting on 15 January 2014. SARC recognizes the need for clear criteria and reasons for assessment and appreciates that this information is essential for the CMA's work. We will provide further clarification to each of the four requests, and then propose steps that we can take to ensure that the CMA has all the required information in the future. For completeness, we have attached SARC's original assessment as referred to in your request.

Request:

"Criterion (b) for threatened states "there is evidence that the range is limited and there is a decline or change in range,

population size or habitat such that it could disappear from the Northwest Territories in our children's lifetime." Please clarify whether there was a decline or a change, or both. Please clarify whether the decline or change was in the range, population size or habitat, or some combination of these."

Further clarification from SARC: By "Criterion (b) for threatened", SARC meant that the following applies: "There is evidence that the range is limited and there is a decline in range and population size such that the species could disappear from the Northwest Territories in our children's lifetime."

Request:

"The fourth bullet under 'main factors' suggests that decline in range was one of the relevant criteria used. The status report itself (distribution trends, pages 6, 10 and 23) seems to suggest that the evidence for range decline is ambiguous. If range decline is part of the rationale for northern leopard frog being threatened, please provide clarification on why SARC believes that the range has declined."

Further clarification from SARC: The main factor SARC used as part of criterion b was the decline in range. SARC used two main lines of evidence to determine decline in range, one from local and community knowledge, and the other from amphibian researchers studying disease and investigating presence of Northern Leopard Frog near hydroelectric facilities in the Taltson River area. SARC put more weight on the local

knowledge to determine range decline because this knowledge was obtained over an extended period of time, with more sites observed over a wider geographic area. Using the evidence from local and community knowledge, it is clear that the range has contracted from the Slave River and hence the entire population of the NWT has declined. The evidence collected from amphibian researchers was given less weight in determining changes in range because their surveys were conducted in restricted sites known to have Northern Leopard Frogs in recent years (specific to disease research), and to sites potentially affected by future hydroelectric expansion. This line of evidence from amphibian researchers provides us with less information on range decline elsewhere. The report notes uncertainty because the latter line of evidence, or types of searches, was not conducted in the Slave River area. There is less uncertainty with the local knowledge, which was deemed more appropriate in providing adequate information about range restriction.

Request:

"The first three points under 'main factors' relate to the limited range of northern leopard frog. Please provide clarification on how the limited range of northern leopard frog affects its extinction risk."

Further clarification from SARC: The restricted distribution and the decline of the Northern Leopard Frog in the NWT are the reasons for conservation concern, given the decline of the Northern Leopard Frog elsewhere in western Canada and the decline of amphibians globally.

NORTHWEST TERRITORIES
**SPECIES
AT RISK**
COMMITTEE

SARC considered the limited range of the Northern Leopard Frog as contributing to the risk of extirpation from the NWT because one threatening event may affect the entire population within our children's lifetime.

Request:

"Under 'additional factors', several possible threats are listed. In the status report itself (pages 11 and 35-41) these threats are considered to be 'potential' or to have 'low' or 'small' magnitude. Please clarify whether any of these threats were considered by SARC to be important threats to northern leopard frog in the NWT. If so, please clarify how those threats were considered in the assessment to affect extinction risk."

Further clarification from SARC: The report points out that each individual threat is low or small, at present. The main threat of concern is a suite of diseases (i.e., chytridiomycosis, ranavirus infections, "red-leg" bacterial infections); each particular disease is currently considered to be of low impact in the NWT. However, the evidence detailed in the report highlights the high mortality and rapid effects of these diseases in the northern portions of the prairie provinces. SARC considered the probability of a die-off affecting the NWT's entire population to be high, due to one or a combination of these diseases impacting the population within our children's lifetime. The other threats were deemed to be low (e.g., UV exposure, deformities) or potential (e.g., air pollution) at present if considered individually, but SARC considered all threats cumulatively. In addition, SARC considered that if one or more of the

threats increased in the near future, the species would need a re-assessment and could be reconsidered as endangered.

SARC noted that the GNWT's letter mentioned a need for clarification on how the limited range and the set of threats affect extinction risk of Northern Leopard Frog. Please note that SARC does not assess the risk of extinction of species from the world but the risk of extirpation of species from the NWT. SARC's responsibility is to assess any species that may be at risk in the NWT, including species with naturally limited ranges, as long as they are wild by nature in the NWT.

SARC recognizes the importance of providing clear and understandable information for a listing decision. SARC will commit to reviewing and, if necessary, improving the assessment report template. SARC is also working to incorporate the use of the IUCN Threat Calculator as an additional tool to assist with the estimation of the cumulative impact of threats on a species that may be at risk in the NWT. This tool is used extensively in Canada by COSEWIC and by the IUCN globally, and is proving to be useful to better account for the impact of individual threats and the cumulative impacts of many threats.

We look forward to holding a training session and mock assessment at the CMA's June 10-11, 2014 meeting to help improve understanding of the assessment process, as per the CMA's request. The conservation of species at risk is part of a larger commitment to maintain the biological diversity of the NWT, and better communication between our

NORTHWEST TERRITORIES
**SPECIES
AT RISK**
COMMITTEE

organizations is part of our shared responsibility for the protection and conservation of species.

Sincerely,



James Firth, Chairperson
Species at Risk Committee

- c. **Northwest Territories Species at Risk Committee**
Northwest Territories Conference of Management Authorities