

# Minnesota Department of Natural Resources

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Via E-mail

March 7, 2014

Ms. Angela Matz  
U.S. Fish and Wildlife Service  
Fairbanks Field Office  
101 121th Avenue, Room 110  
Fairbanks, Alaska 99701

Re: Yellow-billed Loon Peer Review

Dear Ms. Matz:

I have reviewed the Yellow-billed Loon (*Gavia adamsii*) Draft Species Assessment Report dated February 13, 2014, and offer the following comments. In general, the current status of the Yellow-billed Loon is well researched and described, and the conclusions are well reasoned and sound, with one exception which I will elaborate on later. In particular, the previously unquantified issue of subsistence harvest is well researched and addressed. The focus on long-term aerial surveys and population estimates on the Arctic Coastal Plain is a reasonable approach to assessing population status in the face of uncertainty surrounding populations in Canada and Russia. However, this should not be an excuse for not fostering much more research in Canada, as a substantial portion of Canadian breeding birds winter in U.S. territorial waters in the Gulf of Alaska. Your thorough assessment of the existing Russian literature is impressive.

One of the items you asked me to address was whether any statements in the document should have additional citations. I found many instances where statements were supported by citing only the most recent publication or document, where earlier publications were not mentioned. I do not enumerate these omissions, as they do not seem to modify the conclusions and would only serve to emphasize my earlier contributions to Yellow-billed Loon research and conservation. However, one reference you have overlooked that may or may not be useful (since it covers mostly behavioral ecology) is my booklet, *Activity Budgets and Habitat Use by Breeding Yellow-billed Loons in Alaska* (2008), attached. It is not widely distributed, but has been available off-and-on for free downloading at various websites.

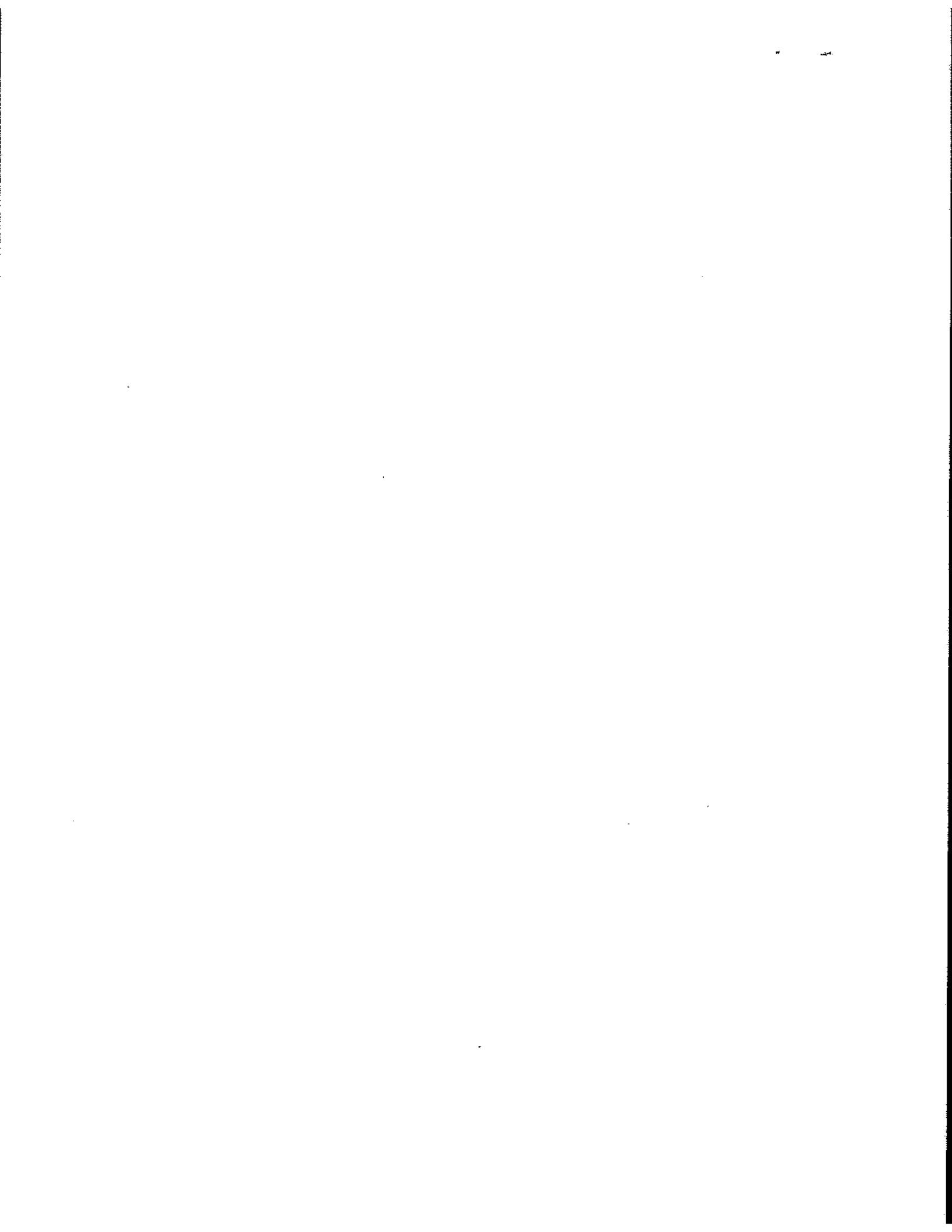
One factor that I believe could use more discussion is the competition between Yellow-billed Loons and Pacific Loons on the breeding grounds for reproductive territories. Loon populations are ultimately limited by the number of suitable lakes for nesting and brood-rearing, but the proximate limiting factor for Yellow-billed Loons would be the number of suitable lakes not occupied by Pacific Loons. This has obvious potential implications for Yellow-billed Loon conservation, analogous to the unsavory situation of having to choose between Spotted Owls and Barred Owls in the Pacific Northwest. Background information on competition between Yellow-billed Loons and Pacific Loons can be found in *Birds of North America*, No. 121 (Yellow-billed Loon) as well as in Federal Register 74:12932-12968 (pages 12933-12934) and in North (1986. Breeding Biology of Yellow-billed Loons on the Colville River Delta, Arctic Alaska. M.S. Thesis, North Dakota State University. 109 pages).

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The only other relevant biological information that seems to be missing is an assessment of wintering locations from Christmas Bird Count (CBC) data. There is a wealth of information from decades of CBCs that show areas of concentrations, such as around Kodiak Island, Prince William Sound and Hecate Strait, B.C. That, coupled with one or more figures showing migrations routes and wintering areas of Yellow-billed Loons tracked by satellite implants would illustrate the segregation of different populations and the different threats that they face.

#### Specific Comments

Page 10, last sentence. It is unclear what is meant by "both species" since only Yellow-billed Loons are being discussed here.

Page 13, second paragraph under 2.5 Genetic Diversity. I suggest changing "genetic population structuring" to "genetically-different populations exist" (if I am interpreting the meaning of this statement correctly).

Page 16. I would 1) add to the list a new concept of "stable conditions" that allow Yellow-billed Loons to effectively compete or out-compete Pacific Loons for territories, or 2) expand that concept into the statement about "stable environments"

Page 22, last paragraph under 3.1.5 Wintering estimates. This is where Christmas Bird Count data could be a valuable addition to the assessment, not just for Alaskan waters but also for Canada.

Page 27, first full paragraph. Climate change may lead to a longer ice-free period in the autumn, allowing Yellow-billed Loons a longer window to fledge young before freeze-up occurs. Early freeze-up has been implicated as a source of mortality for loon chicks.

Page 32, second paragraph. This is the only place I noticed Johnson and Herter (1989) cited, and they are cited appropriately here. However, you should be aware that the densities given for Yellow-billed and Pacific Loons are inaccurately presented, and the data given for Common Loons is actually for Pacific Loons. At one point the authors were going to print an errata for the book (S.R. Johnson, personal communication, 25 September 1989), but I am not aware that they ever did.

Page 34, second full paragraph (Predation), seventh line. Minor point, but the word "predate" is misused; "depredate" is the proper usage.

Page 35, third full paragraph, last two sentences. In contrast to how well the rest of the Species Status Assessment has been documented and conclusions justified, the conclusion of this paragraph is weakly justified and relies on a single source (with potential biases) for its justification. While much has been written on this matter, I found one reference to be particularly compelling in succinctly laying out the issues, and that is Ted Williams's piece, *Shell Game* (*Audubon* magazine, November-December 2013). The next paragraph in the Species Status Assessment does acknowledge some of the concerns expressed by Ted Williams. Perhaps what is lacking is a greater description of the assessment of BOEMRE (2011) and the additional safeguards that have been implemented since the Deepwater Horizon accident (alluded to on page 36). The risk of a catastrophic spill affecting the populations of Yellow-billed Loons and other arctic aquatic species is too great to address superficially, and it is the crux of the matter when it comes to addressing whether other regulatory mechanisms are in place to protect Yellow-billed Loons.



Page 54, part 4.13, Conservation measures. Since the document indicates repeatedly that future (i.e., over 25 years out) threats to Yellow-billed Loons are foreseeable, it follows that continued research and monitoring are warranted. This section is critical to conveying a sense that Yellow-billed Loons will continue to be closely monitored following a negative decision on listing.

Page 55, first full paragraph, last sentence. I do not disagree that more information is needed on migration routes and connectivity between breeding and wintering populations, however, most of the questions remaining involve Russian and Canadian breeding populations. I highly encourage the Department of Interior (i.e., U.S.G.S.) to publish the results of satellite tracking that has been accomplished to date.

Page 56, second full paragraph. If this conclusion refers strictly to onshore oil and gas exploration activities, I would concur with the conclusion. If it also refers to offshore activities, please refer to my comments regarding page 35.

Page 57, first paragraph. Please refer to my comments regarding page 35. I am very reluctant to concur with the conclusion of this paragraph without addition supporting details.

#### Recommendations

Include one or maps showing migration routes and wintering areas of Yellow-billed Loons tracked with satellite implants. Correlate these wintering areas with data from Christmas Bird Counts.

Create a database of long-term lake-specific use by Yellow-billed Loons and Pacific Loons. There is already long-term use data for lakes on the Colville River Delta and along the Chipp and Ikpikpuk Rivers; the data is just in dispersed locations.

Monitor lake use in the Chipp-Ikpikpuk-Meade River region and Colville River Delta area once every 5-10 years to maintain lake database.

Create an online repository of Yellow-billed Loon survey reports, data compilations, research reports, etc. that are not published, and make them accessible to the public for downloading.

Assess in more detail the issue of resource partitioning and competition between Yellow-billed and Pacific Loons.

Strengthen the justification for concluding that the risk of a catastrophic spill is small, and indicate what the worst-case scenario would be if such a spill were to occur.

Thank you for the opportunity to review the draft Yellow-billed Loon (*Gavia adamsii*) Draft Species Assessment Report. Please do not hesitate to contact me for additional information.

Sincerely,



Michael R. North  
Forest Game Bird Coordinator

