Comments on SGCN: Fish
Compiled October 2014

MDIFW's responses (in blue) to peer and partner comments were provided by Dave Boucher, Dana DeGraaf, Merry Gallagher, and Shawn Haskell. Responses to duplicate comments on the same species are grouped together and appear at the end of this document. Marine species comments were addressed by the Maine Department of Marine Resources (DMR) in a separate document ('Marine' under the September 30, 2014 meeting link) located on Maine's Wildlife Action Plan revision website (http://www.maine.gov/ifw/wildlife/reports/MWAP2015_Meetings.html).

For comments related to the general process for designating species of greatest conservation need, please see the presentations 'SGCN Process' from the July 8, 2014 meeting and 'Revised SGCN Process' from the September 30, 2014 meeting on Maine's Wildlife Action Plan revision website (http://www.maine.gov/ifw/wildlife/reports/MWAP2015.html).

Please direct any questions to mainewildlifeactionplan@gmail.com.

1. Email from David Halliwell (6/30/14)

I would concur with most of these designations, with the exception of ***American Brook Lamprey*** (addition as Criteria 1 ROE – in Maine), ***Longnose Dace*** (include as Criteria 1 ROE – in Maine and Criteria 4 HRCP), ***Bridle Shiner*** (addition as Criteria 1 ROE – in Maine), and ***Brook Stickleback*** (addition as Criteria 4 HRCP). Inclusion of ***Brook Trout*** as a Criteria 4 HRCP should only apply to lacustrine populations in Maine – which would also include the Criteria 5 CCV designation. Inclusion of ***Eastern Silvery Minnow*** as a native Maine fish species is questionable [see Kircheis, F.W. 1994. Update on freshwater fish species reproducing in Maine, *Maine (Northeastern) Naturalist* 2(1):25-28].

MDIFW's responses are at the end of this document.

2. Comments from July 8, 2014 break-out group

- NatureServe data- may not be complete for Maine.
    - How do we address w/ endemic definition? Do we need a broader definition of "endemic"?
        - Peer-reviewed, published documentation of phylogenetic distinction should be acceptable as well.

    - NatureServe utilizes historic range data, but what do we do with species with limited data (horseshoe crab) in NatureServe or species that are not listed as endemic (Arctic char)?
- For species on the list, are all the correct boxes checked to determine P1 vs P2 status?
    - Some species listed as P2 should be P1? – examples: arctic char/endemism issue; the whitefishes – recent, drastic declines.
    - Consider adding landlocked salmon to the list; differentiate native vs stocked populations?
    - Baitfish listed as SGCN are also on the MDIFW commercial harvest list. How do we handle SGCN species that are of commercial/recreational harvest value?
- Need to review marine species:
    - ESA listed species off list since already funded federally/internationally (e.g., whales) and not actively managed by the state?
    - Need to add species: Horseshoe crab, cod, cusk, wolfish, shad, etc.? Claire Enterline from DMR to address with staff.
    - Differentiate between landlocked/FW forms of anadromous species (e.g., smelt, salmon etc.)? Anadromous smelt are declining significantly across their range- need to separate from landlocked form.

MDIFW's responses for freshwater fish are at the end of this document.
Responses to marine species comments were provided by DMR.

3. Email from Mac Hunter (7/7/14)

- Do Chimney Swift and Golden Eagle and Blueback Herring make Priority one on the basis of two criteria?
- The Priority 2 bird list is so long that it ceases to be much of a priority exercise. I wonder how much we should worry about mobile species like birds that are likely to readily shift their geographic range in response to climate change. I would tend to limit the CC perspective to sea level rise and tidal birds. Surprised brook trout was not listed as CC threatened.

MDIFW's responses for freshwater fish are at the end of this document.
Responses to marine species comments were provided by DMR.

4. Email from Gary Corson (7/8/14)

I've read most of the information available on the Department website and although there seems to be a great deal of information in general, I haven't seen a lot of detailed

information focused on Maine's inland fish. (ie. Arctic Char, Lake Whitefish, and Brook Trout.

MDIFW's responses are at the end of this document.

5. Email from Jym St. Pierre (9/29/14)

Atlantic salmon. (*Salmo salar*). Our organization has been a leading advocate of strong protection for Atlantic salmon and its habitat for more than two decades. In 1993, we petitioned to have the species added to the national Endangered Species list. I note that the Atlantic salmon is proposed as a Priority 1 (Highest Priority) Species of Greatest Conservation Need in the new Wildlife Action Plan. Since Maine's population of Atlantic salmon is of national significance, we support Priority 1 designation and urge that the species be added to the Maine Endangered Species list.

Indeed, Atlantic salmon are proposed as SGCN Priority 1. The process for designating SGCN is completely separate from the process of listing species under the Maine Endangered Species Act.

Brook trout (*Salvelinus fontinalis*). I note that the brook trout is proposed as a Priority 3 (Moderate Priority) Species of Greatest Conservation Need in the new Wildlife Action Plan. However, since Maine's population of brook trout is of national significance and in the face of accelerating climate change and shifting forest management practices, the species should be evaluated for a higher priority listing.

MDIFW's responses are at the end of this document.

6. Email from Jeff Reardon (10/3/14)

(1) We applaud the elevation of landlocked Arctic Char from Priority 2 to Priority 1. We continue to believe that Lake Whitefish also deserve Priority 1 status. Lake Whitefish and landlocked Arctic Char were both identified as Priority 1 SGCN in Maine's 2005 SWAP. See attached comments submitted during Maine's ESA review process that address this issue. I should have provided them to this forum earlier.

MDIFW's responses are at the end of this document.

(2) The inclusion of a third category (Priority 3) of SGCN is a significant change from what was originally proposed. We do not oppose this revision in principle. Our understanding is that this change is driven in part by concern that given the large number of SGCN, the workload involved with developing Elements 2, 3 and 4 (Identification of Habitat Types; Identification of Stressors; and Development of

Conservation Actions) might be overwhelming. However, for freshwater fish, the number of species listed is relatively small--1 Priority 1; 5 Priority 2; and 10 Priority 3. We believe it is both feasible and appropriate to evaluate habitat needs, identify stressors, and develop desired conservation actions for each of these species. Our understanding is that DIFW intend to do this. If that is not the case, we have concerns about several of the species that have been placed on the newly created "Priority 3" list, and would argue for their elevation to Priority 2 in order that they get this level of attention. These include wild brook trout and wild lake trout. In the 2005 SWAP, lake trout was a Priority 1 species and brook trout was a Priority 2 species. Although neither species appears to be at risk at the present time, Maine serves as the only state in the Northeast that maintains healthy populations of native brook trout and lake trout in multiple waters distributed throughout the state. Maine's core populations of and high quality habitat for these species are critical to their regional conservation. As such, even though these species may be at no risk of extinction within Maine, Maine has a responsibility to ensure that we continue to support stronghold populations for both species.

MDIFW's responses are at the end of this document.

(3) We do not understand why wild landlocked Atlantic salmon are no longer listed as a SGCN. They were a Priority 2 SGCN in 2005. Native landlocked Atlantic salmon were historically limited to a handful of lakes in just four Maine watersheds. Populations in 3 of those watersheds are now maintained through extensive hatchery stocking programs; only one of the original native lakes remains as a wild population.

This statement requires clarification. Sport fisheries in Sebago and West Grand Lakes are partially maintained by hatchery stocks, but those stocks are derived entirely from feral fish captured from Sebago and West Grand Lakes. These fish are cultured for about 16-18 months and then replanted in their respective "donor" lakes. Sebec Lake is entirely self-sustaining, while Green Lake is partially sustained with hatchery stocks, largely from West Grand Lake strain fish.

(4) Although they are present in different watersheds, the natural history of landlocked Atlantic salmon closely parallels that of landlocked Arctic char. In both cases, Maine started with a handful of native populations, isolated from each other and from other populations of char and salmon by watershed boundaries. For both species, there has been a significant decline in the number of wild, self-sustaining populations (although ll salmon have been maintained through hatchery supplementation in all of the original waters).

This statement is inaccurate for landlocked salmon, and excepting the early 1900's extirpation of char from the Rangeley chain, it is inaccurate for char as well. Maine currently supports about 60 wild landlocked salmon populations that are entirely self-sustaining and support significant fisheries. The distribution of wild landlocked salmon populations has remained stable or increased slightly since the 1970s.

(5) Both species had distributions that were historically limited to the Northeastern US and Maritime Canada; and Maine sustains the only remaining native self-sustaining populations of both species in the United States.

This statement is inaccurate for landlocked salmon. Landlocked salmon also are distributed throughout Quebec, Labrador, Newfoundland, Norway, Sweden, Finland, and northwestern sections of Russia. That is, landlocked salmon do not meet the criteria for a "Regional Endemic".

It is unclear to us why landlocked Arctic Char are identified as a "Regional Endemic" while landlocked salmon are not. We believe landlocked Atlantic salmon should be listed as an SGCN, as they were in 2005.

Arctic char qualified as a 'Regional Endemic' based on Bernatchez et al. (2002). Bernatchez et al. (2002) verified that Maine's landlocked arctic char are the result of a single colonization event post glaciation that distinguishes them from other char. At this time, we do not have the comparable data needed to identify landlocked salmon as a 'Regional Endemic'.

(6) Why are Redfin Pickerel a Priority 2 species? They were listed as Priority 1 in 2005; are listed as "Endangered" under Maine's Endangered Species Act and their distribution is limited to a handful of watersheds. Priority 1 seems more appropriate.

MDIFW's responses are at the end of this document.

(7) If the Department is truly interested in encouraging informed public input, we believe it would have been appropriate for the input you have received from peer reviewers to be available via the State Wildlife Action Plan website. Information provided in those comments might change our views above. We don't believe any purpose is served by withholding those comments until after the Department has prepared its response to them. A more open process would encourage additional discussion and public buy-in of the Department's final product.

MDIFW received multiple SGCN comments from peer and partner reviewers over several months. For purposes of record-keeping, efficiency, and ease-of-use by the general public, MDIFW compiled SGCN-specific comments and responses into single documents for each taxa group. These documents can be found on Maine's 2015 Wildlife Action Plan revision website as of late December 2014.

6. Email from Gary Corson (10/3/14)

When can we expect the meeting notes/minutes to be posted on the SWAP webpage from: the steering committee meeting, 2) landowners meeting, and most importantly 3) peer reviews (Who were the 5 reviewers for freshwater fisheries?)

1) *Steering committee meeting minutes and responses to peer review comments have been posted to the Wildlife Action Plan revision webpage (http://www.maine.gov/ifw/wildlife/reports/MWAP2015.html).*
2) *We will not be posting minutes from the landowners meeting; however, outcomes from this meeting were discussed at the September 30, 2014 conservation partners meeting and are summarized in the 'Full Day Notes' for that meeting on the Wildlife Action Plan website.*
3) *We solicited peer review from the following experts:*
   - *David Halliwell (Aquatic Biologist, Maine Department of Environmental Protection)*
   - *Fred Kircheis (retired Fisheries Scientist)*
   - *John Magee (Habitat Biologist, New Hampshire Fish and Game)*
   - *Allen Curry (New Brunswick Fish and Wildlife Cooperative Research Unit)*
   - *Joseph Zydlewski (Maine Fish and Wildlife Cooperative Research Unit)*

Please accept the following comments regarding the changes in criteria and the new priority 3 classification. I'd note that I'm not opposed to the priority 3 classification, but I do have concerns as to just what the new classification accomplishes as far as conserving SGCN.

1. The Priority 3 classification should mean something and that something should be noted in the SWAP. I understand that the SWAP focuses on the need for funding as well as the need to prioritize that funding for species of "Greatest" conservation needs (SGCN). I'm also aware that there's not enough funding available to address all concerns for all species; with that in mind, what does a priority 3 classification provide, or do, for the resource designated as a SGCN? I was very disappointed to learn that habitat associated with priority 3 species would not be included in the habitat database or discussed at the October 30 meeting, and that conservation action would not be included for priority 3 species, etc. While I recognize that some taxa categories would require a great deal of staff time to include all elements for all priority 3 species (I.E. birds), taxa such as freshwater fishes that have far fewer species, would not require an unreasonable or overwhelming effort, and should include all elements associated with the SWAP for all 3 priorities of SGCN.

There are many ways that SGCN can benefit from a listing in the SWAP when federal grants may not be available for species listed in the lower priority classifications (I.E. priority 3). SGCN listed as priority 3 should be noted in all Department species management plans, policies, etc. All SGCN regardless of priority should require management of listed species to be based on best management practices for a species in decline and/or at risk. Whenever possible, the elements noted in the SWAP (when applicable) should be considered and noted in species management plans, policies, etc.

Prioritization of SGCN species is essential for maximizing funding and capacity available for conservation efforts. We are working collaboratively with our partners to determine how SGCN priority rankings affect development and implementation of conservation actions, including Priority 3 species. This will be fully documented in the Action Plan. Priority 3 species were assigned habitat associations and are included in the habitat database. Furthermore, Priority 3 species are considered SGCN and therefore are still eligible for State Wildlife Grants. Flexibility is important to maximize benefits from unpredictable opportunities.

BKT are a priority 3 using the current criteria. It could be argued that Maine BKT should have a higher priority, not because of a decline or an at risk population in Maine, but because Maine is the last state in the country with a viable lake and pond dwelling wild and native BKT population and more than likely the only State without the population being at risk or in peril. A priority 3 classification is justified as long as the listing does something, and/or means something that protects the resource. (As a side note: I noticed during one of the presentations at the Sept. 30 SWAP meeting, 1 slide pictured BKT as a priority 1 species, or at least gave that impression. To me the slide confirms the recognition Maine's wild and native BKT receive as a species of great importance and I would suggest a species of great conservation need regardless of the assigned priority.)

MDIFW's responses for brook trout are at the end of this document. As stated above, Priority 3 species will be considered in planning and implementing conservation actions. Specific approaches to prioritizing actions will be constructed collaboratively with conservation partners.

2. Landlocked Salmon (LLS) were a priority 2 in the 2005 SWAP, and have been removed altogether from the current SWAP SGCN. The last documentation that I've seen regarding native LLS was presented to the Joint Standing Committee on Inland Fisheries and Wildlife in 2005. That document noted; MDIFW lists 3 lakes and ponds in the entire State designated as principal native LLS fisheries. It's difficult to understand how and why this species was removed or doesn't qualify as a SGCN (especially when you take into account the addition of a priority 3 classification). Of course, as previously mentioned, priority 3 would benefit the LLS resource only if the classification requires management practices to protect or preserve the resource in some way.
Please consider this question. Should a SGCN be removed from the listing as a result of changes in criteria? A change in priority as a result of criteria change is certainly appropriate (which addresses the funding priorities), but, it seems more than reasonable

that removal of a SGCN would always require an explanation (I.E. improved population status, etc.)
Maybe another criteria column for priority 3 should be considered.(I.E. "species previously listed - status unchanged"). Such a column would assure all SGCN would continue to be recognized as in need of conservation unless a status change had taken place.

Please see responses above to Jeff Reardon's 10/3/14 email regarding landlocked salmon and MDIFW's grouped responses at the end of this document.

3. LKT were ranked as a priority 1 in the 2005 SWAP, a priority 2 in the June 13, 2014 draft, and finally listed as a priority 3 in the September 25, 2014 list of SGCN. The same document referenced above regarding LLS, acknowledges 15 principal native LKT lakes and ponds in Maine. The only criteria checked for priority 3 status of LKT is "understudied taxa". If not for someone determining that LKT were understudied, LKT too would have been removed from the list of SGCN just as LLS were. (Some might find it a little confusing that on one hand LKT are understudied, while on the other, LKT are stocked all over the State.)

The updated 2015 SGCN criteria reclassify lake trout as a Priority 3 species based on the 'Understudied Taxa' criterion. In this case, 'understudied taxa' refers to our level of confidence around our understanding of the current status and distribution of native lake trout populations and whether the current distribution differs significantly from historical records. As stated above, lake trout have and continue to be stocked and intensively managed for sport fisheries around the state, but we really do not have a good understanding of which populations are truly native, whether they are threatened in any way, and if we have lost a significant number of native lake trout populations. Additional research would likely clarify some of these questions.

MDIFW's Grouped Responses to SGCN Comments

Most questions can be grouped as follows:

- **Why are certain criteria not 'checked' for a particular species (hence their SGCN rank is questioned)?**
- **Why are SGCN priority ranks sometimes quite different from those in the 2005 Action Plan?**

The 2005 and 2015 processes for developing and ranking SGCN fishes are distinct processes and should not be thought of as related in any way. The criteria used in 2005 were quite different than what is being proposed for 2015 and were also distinct from the criteria used to score all other taxa groups at that time.

Below is the criteria used in 2005 (Page 102 of Maine's Comprehensive Conservation Strategy http://www.maine.gov/ifw/wildlife/reports/wap.html):

> ***"Scoring Criteria Used for Assigning Priorities***
> *• Range/population restricted? Those species having a restricted range and/or low population numbers were assigned higher scores.*
> *• Range/population declining? Those species whose range and/or population numbers are declining were assigned higher scores.*
> *• Are habitat requirements narrow? Those species with narrow habitat requirements were assigned higher scores.*
> *• Is the species on/or proposed for Federal/State Threatened or Endangered lists? Those species on/or proposed for Federal/State Threatened or Endangered lists were assigned higher scores. Scores (0 to 4) were assigned to each species for each criterion. The 14 species listed above [see 2005 plan for this list of species] received the highest scores.*
> *Note: Three species, the American eel, brook trout, and rainbow smelt occur in both inland and marine environments, but were assigned to the Inland Fish group to simplify discussions and tabular presentations throughout the CWCS.*
> *Note: 13 species were not prioritized because of insufficient information."*

As part of the 2015 process, the SGCN fishes are being scored through the same process as all other taxa groups to maintain consistency within this revision of the Plan. The 2015 criteria for all taxa are based on the best available and most recent scientific information available.

For questions related to ranking of American Brook Lamprey, Longnose Dace, Bridle Shiner, and Brook Stickleback:

- *None of these species meet our criteria for 'Risk of Extinction' because none are listed as federal (U.S. Endangered Species Act) or Maine (Maine Endangered Species Act) endangered or threatened species nor are any recognized by IUCN as critically endangered, endangered, or vulnerable to extinction.*
- *Longnose dace and brook stickleback are not part of any current and on-going northeast regional conservation effort; hence they do not meet the criteria for 'High Regional Conservation Priority'.*

- *All are considered to be understudied in Maine and all would benefit from a focused survey and assessment effort to gain a better understanding of their current distribution and status.*

Comments related to brook trout, climate change, and forestry management practices.

Climate Change: *The vulnerability of cold-water habitats is influenced both by warming air temperatures, ground water flow, and altered stream flow patterns (increased and earlier flow in the spring, decreased flow in the summer). These findings regarding cold-water habitats are consistent with a recent vulnerability assessment of brook trout, which scored medium (2), suggesting that significant impacts on population distribution and status are expected, but near-term loss is unlikely on a statewide basis (Whitman et al. 2014).*

Although the Eastern Brook Trout Joint Venture (EBTJV) recognizes that predicted increases in overall temperature regime is a threat to wild brook trout populations across their US range, they concede that the greatest concerns lie within the southern Appalachians. In the range-wide status and threats assessment (EBTJV, 2006), the greatest threats to Maine's wild brook trout were found to be a variety of issues that affect physical habitat, accessibility to vital habitats, or other fish species interactions that are likely to affect trout populations in the near future versus climate change affects which can operate at a decadal time scale. Brook trout tend to be ecological generalists and are quite adaptable to changing conditions if they can move or shift accordingly when required. Although we do expect localized distributional shifts, shifts in habitat use, and shifts in behavioral patterns due to changing climate, there are other stressors that are well recognized as greater concerns for Maine's wild brook trout.

Although Maine's wild lacustrine brook trout were found to be of extremely high conservation concern in the most recent range-wide status assessment (EBTJV, 2006), the overall finding of the EBTJV was that wild brook trout populations in the eastern United States are impaired (Hudy et al. 2005). Hence, the conservation unit recognized by the EBTJV under the conservation strategy is the extent of the wild brook trout resource across the Eastern United States. Brook trout are ranked as a Priority 3 SGCN because the only SGCN designation criterion they qualified for was 'High Regional Conservation Priority' due to being the focus of a large scale regional conservation effort, of which the MDIFW is a signatory (EBTJV, 2006). Whitman et al. (2014) found brook trout to be moderately vulnerable to climate change; therefore this species did not qualify for the "Climate Change Vulnerability' criterion reserved for species that are highly vulnerable to climate change.

Citations

Eastern Brook Trout Joint Venture (EBTJV). 2006. Eastern Brook Trout: Status and Threats.

Hudy, M., T. M. Thieling, N. Gillespie and E. P. Smith. 2005. Distribution, Status and Perturbations to Brook Trout within the eastern United States. Final report to the steering committee of Eastern Brook Trout Joint Venture. 77 pp.

Whitman, A., A. Cutko, P. deMaynadier, S. Walker, B. Vickery, S. Stockwell, R. Houston. 2014. Climate Change and Biodiversity in Maine: Vulnerability of Habitats and Priority Species. Manomet Center for Conservation Sciences. Manomet, Inc.

Forestry: *Maine's forests have a long history of land use change associated with commercial wood harvest including extensive modifications to facilitate log driving through streams and rivers. Environmental regulations designed to protect natural resources have provided additional protections to all brook trout habitat, including commercial woodlands. Some forestry companies have voluntarily exceeded regulatory standards in order to protect fisheries resources; in recent years some commercial landowners have showed a desire to partner with MDIFW to restore degraded fisheries habitat. For example, the Maine Department of Agriculture, Conservation and Forestry, in partnership with MDIFW, developed guidance on placing large wood in streams to enhance instream cover and habitat for brook trout. The MDIFW also has developed Forest Management Recommendations for Brook Trout that include:*

> *"Potential harmful impacts to fish and wildlife may be further minimized by designating low impact "riparian management zones" adjacent to streams and stream-associated fringe and floodplain wetlands in forest management and harvest plans. Smaller streams may be greatly influenced by land management practices; these systems benefit the most from well managed and intact riparian corridors.*
>
> *The MDIFW also recommends limiting the harvest of trees and alteration of other vegetation within 100 feet of streams and their associated fringe and floodplain wetlands to maintain an intact and stable mature stand of trees, characterized by heavy crown closure (at least 60 – 70%) and resistance to wind-throw. In some situations wider buffers should be considered where severe site conditions (e.g.,*

steep slope, vulnerable soils, poor drainage, etc.) increase risk to soil and stand stability. Any harvest within the riparian management zone should be selective with a goal of maintaining relatively uniform crown closure."

Brook trout are not afforded any special state or federal regulatory protection from forestry operations, so these management recommendations are advisory. Therefore, the MDIFW recommends forestry companies follow Best Management Practices for Forestry (Maine DACF, 2004), which offers guidance on managing and protecting water quality, installing road-stream crossings, and providing fish passage. Maine is still considered to have the most intact, lake and pond brook trout populations throughout their native US range. Current forest management practices are not used to determine ranking criteria for Brook Trout SGCN status.

Citation

2004. Maine Department of Agriculture, Conservation and Forestry (Maine DACF); Forest Policy and Management Division. Best Management Practices for Forestry: Protecting Maine's Water Quality.

Why are redfin pickerel a Priority 2 species?

Although redfin pickerel are extremely rare in Maine, and hence, state listed as endangered, they become relatively common in coastal habitats south of Maine. They are not part of any regional conservation effort, their statewide distribution has remained constant with no perceptible recent decline, and they are not considered vulnerable to climate change based on their ecology. Nor is this species a recreational or commercial target. However, we continue to monitor existing populations and search for previously undocumented populations because where they occur in Maine (southern, coastal habitats) is an area subject to urbanization and suburbanization pressures. Priority 2 SGCN status seems appropriate for this species.

Why isn't Arctic Char considered endemic?

Upon initially drafting the 2015 SGCN list of freshwater fishes, the 'endemism' criterion was interpreted to refer to NatureServe's endemism rankings. However, freshwater fish information housed in the NatureServe database is not the most up to date storehouse regarding Maine's fishes. Because of this and subsequent to peer and public inquiry,

we expanded the endemic criterion to include peer-reviewed, published scientific literature pertinent to the topic and species in question. Hence, Maine's arctic char populations do meet the endemic criterion based on Bernatchez et al. (2002) and have subsequently been elevated to Priority 1 SGCN status.

Citation

Bernatchez. L., J. G. Rhydderch and F. W. Kircheis. 2002. Microsatellite Gene Diversity Analysis in Landlocked Arctic Char from Maine. Transactions of the American Fisheries Society. 131:1106-1118.

Why don't Lake Whitefish meet the criteria for recent significant decline?

Under the revised SGCN list dated November 17, 2014, lake whitefish now qualify for 'Recent Significant Decline'. Maine's lake whitefish populations have experienced drastic declines over the past 100 years and significant declines over the past several decades (ET_Listing_2013_Worksheet_LWF.pdf). Hence, the 'Recent Significant Decline' criterion for Priority 2 designation is applicable to this species.

Why is Eastern Silvery Minnow included as an SGCN species? Previously, the species was considered non-native to Maine.

Recent information regarding the status of Eastern Silvery Minnow warrants further scrutiny of this species as, perhaps, a previously overlooked member of Maine's native fish community. Eastern Silvery Minnow are known to occur as far north along the Atlantic slope as the Connecticut River drainage in New Hampshire and parts of the St. Lawrence drainage in Quebec. New Hampshire Fish & Game considers the species native to that state and also recommends that further investigation into the distribution and status of the species within New Hampshire is a priority (http://www.wildlife.state.nh.us/Fishing/Fish_species/fish_conservation_profiles/silvery_minnow.php). The species is considered as Special Concern in Massachusetts with a few known occurrences in the Connecticut River drainage.

We are familiar with the cited reference declaring Eastern Silvery Minnow as a non-native fish species occurring in Maine; however. the reference gives no evidence for this finding other than a self-sustaining and apparently disjunct population of the species had been discovered in mid-coast Maine in 1982 (Kircheis 1994). More recently, MDIFW has found that at least some species occurrences previously considered to be Emerald Shiner (Notropis atherinoides) are in fact Eastern Silvery Minnow that were apparently misidentified over the years. Similarly, during 2013 and 2014 Baitfish Dealer

Inspections, all fish encountered by Biologists that were being marketed and sold as 'Emerald Shiner' (a legal baitfish in Maine) were in fact keyed out as Eastern Silvery Minnow and these fish likely came from multiple sources in southern and mid-coast Maine. This recent confusion regarding the identification, status, and revised state distribution of the species contributes to a rethinking of the species status and occurrence in Maine. At minimum, it warrants further investigation. Hence, we cannot conclusively rule out the possibility that Eastern Silvery Minnow may be a case of a rare, overlooked native Maine fish. They are currently being proposed for SGCN status under the 'Understudied, Rare Taxa' criterion.

How do we handle species that have commercial or baitfish value as SGCN?

This consideration is being handled on a species-by-species basis. Of the species currently proposed for SGCN status that have commercial or baitfish value, all but one are being proposed on the 'Understudied, Rare Taxa' criterion for Priority 3 status (Longnose Sucker, Creek Chubsucker, Eastern Silvery Minnow, Pearl Dace, Blacknose Shiner, and Longnose Dace). All of these species are either rarely encountered or tend to occur only in certain geographic areas of the State, but beyond that, not much is known about them. None of these species are the focus of any research or targeted study and all would benefit from a greater understanding of their current distribution, population status, and ecological role. Considering them as SGCN in the Wildlife Action Plan seems like a logical fit. Also, three species are currently being considered for removal from Maine's list of legal baitfishes because of elevated conservation concern coupled with a lack of use in the baitfish fishery (Creek Chubsucker, Bridle Shiner, and Longnose Dace).