#### **ENVIRONMENTAL PROTECTION**

#### **DIVISION OF FISH AND WILDLIFE**

**Endangered and Nongame Species** 

Proposed Amendments: N.J.A.C. 7:3-1.3; 7:7-9.36; 7:15-1.5; 7:25-4.1, 4.13, 4.17, and

4.18; 7:36-2.1; and 7:38-1.4

Proposed Repeals: N.J.A.C. 7:25-21

Authorized By: Shawn M. LaTourette, Commissioner, Department of

Environmental Protection.

Authority: As to N.J.A.C. 7:3: N.J.S.A. 13:1B-3, 13:1B-15.100 through 102, 13:1B-15.106, 13:1D-9, 13:1L-1 et seq., 45:1-9, 45:15C-1 et seq., and 54:4-23.1 et seq.

As to N.J.A.C. 7:7: N.J.S.A. 12:3-1 et seq., 12:5-3, 13:1D-1 et seq., 13:1D-9 et seq., 13:1D-29 et seq., and 13:9A-1 et seq.

As to N.J.A.C. 7:15: N.J.S.A. 13:1B-15.146 through 15.150, 13:1D-1 et seq., 13:19-1 et seq., 13:20-1 et seq., 23:2A-1 et seq., 40:55D-93-99, 58:10A-1 et seq., 58:11-23 et seq., 58:11A-1 et seq., 58:16A-50 et seq., and 58:29-1 et seq.

As to N.J.A.C. 7:25: N.J.S.A. 23:1-1 et seq., 23:2A-1 et seq., 13:1B-30 et seq., and 13:1D-1 et seq.

As to N.J.A.C. 7:36: N.J.S.A. 13:8A-1 et seq., 13:8A-19 et seq., 13:8A-35 et seq., 13:8C-1 et seq., and 13:8C-43 et seq.; and P.L. 1961, c. 46, P.L. 1971, c. 165, P.L. 1974, c. 102, P.L. 1978, c. 118, P.L. 1983, c. 354, P.L. 1987, c. 265, P.L. 1989, c. 183, P.L. 1992, c. 88, P.L.

1995, c. 204, P.L. 1999, c. 152., P.L. 2007, c. 119, and P.L. 2009, c. 117.

As to N.J.A.C. 7:38: N.J.S.A. 13:1B-15.128 et seq., 13:1D-1 et seq., 13:9B-1 et seq., 13:20-1 et seq., 23:2A-1 et seq., 58:1A-1 et seq., 58:10A-1 et seq., 58:11-23 et seq., 58:11A-1 et seq., 58:12A-1 et seq., and 58:16A-50 et seq.

Calendar Reference: See Summary below for explanation of exception to calendar requirement.

DEP Docket Number: 04-24-05.

Proposal Number: PRN 2024-072.

Submit comments by August 5, 2024, electronically at <a href="www.nj.gov/dep/rules/comments">www.nj.gov/dep/rules/comments</a>. Please note that the online comment page has changed. Comments can be typed directly into the online form, or uploaded as a .pdf, .doc, or .docx file from the comment page.

The Department of Environmental Protection ("Department" or "DEP") encourages electronic submittal of comments. In the alternative, comments may be submitted on paper to:

Alice A. Previte, Esq.

Attn: DEP Docket Number: 04-24-05

Office of Legal Affairs

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The agency proposal follows:

## Summary

As the Department has provided a 60-day comment period on this notice of proposal, this notice is excepted from the rulemaking calendar requirement pursuant to N.J.A.C. 1:30-3.3(a)5.

# **Introduction**

In accordance with the Endangered and Nongame Species Conservation Act (ENSCA), N.J.S.A. 23:2A-1 et seq., the Commissioner of the Department may promulgate and periodically review a list of those indigenous species and subspecies of wildlife determined to be endangered and may, by regulation, amend the list by making such additions or deletions as are deemed appropriate. Additionally, N.J.S.A. 23:2A-6 provides that the Department may adopt regulations with respect to the taking, possession, transportation, and sale of endangered species or regulated nongame species, including "the list of nongame species regulated pursuant to [this Act]." The Department has promulgated, as part of its Fish and Wildlife Regulations, N.J.A.C. 7:25, the Endangered, Nongame and Exotic Wildlife rules at N.J.A.C. 7:25-4, including the list of endangered species at N.J.A.C. 7:25-4.13 and the list providing conservation status of New Jersey's indigenous nongame wildlife species at N.J.A.C. 7:25-4.17 (nongame species list).

The primary proposed amendments, explained in more detail below, are several additions, deletions, and conservation status updates to both above-cited lists, based upon the

Department's investigations regarding the status of wildlife species populations in the State. In addition, the Department is proposing one significant and several minor structural and organizational amendments to the list of endangered species and the nongame species list. The proposed structural and organizational changes necessitate changes to the definitions section at N.J.A.C. 7:25-4.1, including adding three new terms, amending five existing terms, and amending the introductory language that precedes both lists. The Department is also proposing to amend the title of the nongame species list. As the proposed structural and organizational amendments impact how the more substantive conservation status updates to the two lists are described in this rulemaking, this Summary will address the structural and organizational changes first.

The Department is also proposing new N.J.A.C. 7:25-4.13(c), which establishes that the Department will add a species to the list of endangered species by notice of administrative change when the species has been added to the Federal list of endangered and threatened species of wildlife pursuant to Endangered Species Act of 1973 at 16 U.S.C. § 1531 et seq. (ESA), and is indigenous to New Jersey, but not already included on the State list of endangered species. Rulemaking pursuant to the Administrative Procedure Act will continue to be necessary for all other changes to the list of endangered species.

The Department proposes to update and correct the scientific (Latin) and/or common names of several species on both lists based on the most recently updated standard nomenclature or to make corrections to the names. Updated or corrected nomenclature is based on names published by NatureServe, a network of over 60 governmental and non-governmental organizations and agencies in the United States and Canada, as described at <a href="https://www.natureserve.org/classifying-biodiversity">https://www.natureserve.org/classifying-biodiversity</a>. NatureServe, in turn, relies upon the most

recent classifications established by applicable professional zoological and taxonomic organizations to keep common and scientific names current. Throughout the rulemaking Summary, name changes and other proposed amendments to the lists are included in Tables 1, 3, and 5, with a separate final table (Table 6) showing all other name changes not captured in the preceding tables. Tables 1, 3, 5, and 6 show the nomenclature changes with old names, or portions of names, deleted in brackets, and the new name, or portion of a name, shown in boldface.

Lastly, the Department is proposing to amend N.J.A.C. 7:25-4.18 regarding the term of office of the Chairperson of the Endangered and Nongame Species Advisory Committee (ENSAC) and to provide that ENSAC will determine the meeting frequency.

# <u>New Jersey's Indigenous Nongame Wildlife Species (N.J.A.C. 7:25-4.17) – Proposed Structural,</u> <u>Organizational, and Other Amendments Unrelated to Species Status</u>

New Jersey's ENSCA was enacted in December of 1973. In the definition of "endangered species" at N.J.S.A. 23:2A-3, the New Jersey legislation incorporated two degrees of imperilment: species "... whose prospects of survival or recruitment *are in jeopardy* ...," which the Department has called "endangered," and species whose prospects of survival "... *are likely in the foreseeable future* to become ..." in jeopardy, which the Department has called "threatened" (emphasis added). The Department created a list in the existing rules at N.J.A.C. 7:25-4.13 for only those species determined to be endangered, and placed species determined to be threatened in the list at N.J.A.C. 7:25-4.17 with other nongame species. Approximately two weeks after the New Jersey legislation was enacted, the Federal ESA was signed into law. Pursuant to the ESA, the Secretaries of the Interior and Commerce promulgated a single list of

endangered and threatened species, codified in the Federal rules at 50 CFR 17.11. In 2008, the Appellate Division recognized in *ZRB*, *LLC* v New Jersey Department of Environmental Protection, 403 N.J. Super. 531 (App Div. 2008), that "threatened species" on the nongame species list are a subset of "endangered species" by definition and are entitled to the same protections as an endangered species.

In this rulemaking, the Department is proposing to move threatened species from the nongame species list at N.J.A.C. 7:25-4.17 to the list of endangered species at N.J.A.C. 7:25-4.13 to create a listing format that is more consistent with the Federal standard and to group threatened and endangered species together, as both receive equivalent protections pursuant to N.J.S.A. 23:2A-3, as the court recognized in *ZRB*, *LLC*. This proposed restructuring will move 28 species listed as threatened on the existing nongame species list to the list of endangered species with their threatened conservation status unchanged. Table 1 below identifies the threatened species to be relocated to the list of endangered species from the nongame species list based solely on this proposed restructuring.

Table 1. Proposed additions to list of endangered species at N.J.A.C. 7:25-4.13 based only on the proposed structural change to move species with a conservation status of "threatened" (T) from the nongame species list at N.J.A.C. 7:25-4.17 to the list of endangered species. Proposed amendments to species common and/or scientific names shown with deleted old/incorrect name shown in brackets, and updated/corrected name shown in boldface. The total number for each species group is provided in parentheses.

Common Name	Scientific name
Freshwater Mussels (5)	
Eastern Lampmussel	Lampsilis [radiate] <b>radiata</b>
Eastern Pondmussel	Ligumia nasuta
Tidewater Mucket	Leptodea ochracea
Triangle Floater	Alasmidonta [undulate] <b>undulata</b>
Yellow Lampmussel	Lampsilis cariosa
Dragonflies & Damselflies (6)	
Banner Clubtail	[Gomphus] <b>Hylogomphus</b> apomyius
Brook Snaketail	Ophiogomphus [asperses]aspersus
Harpoon Clubtail	[Gomphus] Phanogomphus descriptus
Kennedy's Emerald	Somatochlora kennedyi
Robust Baskettail	Epitheca spinosa
Superb Jewelwing	Calopteryx amata
<b>Butterflies (2)</b>	
Checkered White	Pontia protodice
Frosted Elfin	Callophrys irus
Amphibians (3)	
Eastern Long-tailed Salamander	Eurycea l. longicauda
Eastern Mud Salamander	Pseudotriton m. montanus
Pine Barrens Treefrog	[Hyla] <b>Dryophytes</b> andersonii
Reptiles (2)	
Northern [Pine Snake] Pinesnake	Pituophis m. melanoleucus
Wood Turtle	Glyptemys insculpta
Birds - breeding (10)	
American Kestrel	Falco sparverius
Barred Owl	Strix varia
Black-crowned Night-Heron	Nycticorax nycticorax
Bobolink	Dolichonyx oryzivorus
Grasshopper Sparrow	Ammodramus savannarum
Horned lark	Eremophila alpestris
Long-eared Owl	Asio otus
Red-headed Woodpecker	Melanerpes erythrocephalus

Common Name	Scientific name						
Savannah Sparrow	Passerculus sandwichensis						
Yellow-crowned Night-Heron	Nyctanassa violacea						
Birds - non-breeding (3)							
American Kestrel	Falco sparverius						
Barred Owl	Strix varia						
Long-eared Owl	Asio otus						

Among the threatened species proposed to be moved from the nongame species list to the list of endangered species based solely on the proposed restructuring, the scientific name is updated or corrected for six species (Eastern Lampmussel, Triangle Floater, Banner Clubtail, Brook Snaketail, Harpoon Clubtail, and Pine Barrens Treefrog) and the common name is updated or corrected for two species (Longtailed Salamander to Eastern Longtailed Salamander and Northern Pine Snake to Northern Pinesnake).

In addition to moving species with a conservation status of threatened (T) from the nongame species list to the list of endangered species, the Department is proposing to organize the list of endangered species in the same way as the nongame species list for consistency, clarity, and ease of use. Specifically, the DEP is proposing to group species on the list of endangered species by their taxonomic class: bivalves, crustaceans, insects, amphibians, reptiles, birds, and mammals, which are presented in phylogenetic order, or roughly the order from the evolutionarily oldest to youngest classes. Within these groups, species will be listed alphabetically by common name.

As most of the State's indigenous birds are migratory, the Department differentiates the conservation status of all birds with separate statuses for breeding and non-breeding populations. Consequently, a bird species may be listed on either or both the list of endangered species and the nongame species list with different conservation statuses for breeding and non-breeding

populations. Within the nongame species list, this is accomplished by adding a second conservation status column for birds so that there is a single listing, or row, for each species and two columns, one to designate the breeding population status and another to designate the non-breeding population status. In the existing rule, within the list of endangered species there is a parenthetical notation that indicates to which population, breeding or non-breeding, the endangered status applies. With the inclusion of threatened species on the list of endangered species, the Department is proposing to restructure this list to the same format as the nongame species list and include a single line or row with two columns for birds, one for the breeding population status and one for the non-breeding population status.

Further, to make both lists more user friendly, for any bird species that appears on both lists, the Department proposes to modify the format of both lists, such that both conservation statuses, one for breeding and one for non-breeding, are provided on both lists, with the conservation status that applies to the status on the other list provided in parentheses. For example, for a bird species with the breeding population listed with a status of threatened on the list of endangered species and the non-breeding population listed with a status of special concern on the nongame species list, the listing for that bird species on the list of endangered species will show as "T" under the "conservation status – breeding" column and "(SC)" under the "conservation status – non-breeding" column, while on the nongame species list, the same bird species will be listed with "SC" under the "conservation status – non-breeding" column and "(T)" under the "conservation status – breeding" column.

Additionally, the proposed relocation of nongame species with a threatened (T) conservation status from the nongame species list at N.J.A.C. 7:25-4.17 to the list of endangered species at N.J.A.C. 7:25-4.13 necessitates amendments to the language that introduces the List at

N.J.A.C. 7:25-4.13(a) and (b). These changes describe that the List includes species with a conservation status of endangered (E), as well as species with a conservation status of threatened (T), and explains that the list provides the assigned conservation status.

The proposed restructuring also requires, or is aided by, several amendments to the terms and definitions at N.J.A.C. 7:25-4.1. The Department proposes to redefine the terms "endangered" and "threatened" as conservation statuses. Species listed at proposed amended N.J.A.C. 7:25-4.13 include those with a conservation status of "endangered" and those with a conservation status of "threatened." As the terms "endangered" and "threatened" are proposed to be recast as conservation statuses on the endangered species list, definitions of the other conservation statuses, "secure-stable," "special concern," and "undetermined-unknown," that apply to the nongame species list at N.J.A.C. 7:25-4.17, are also being amended for consistency of syntax.

To facilitate the proposed restructuring and to clarify the locations of species of various conservation statuses within the two lists, the Department is also proposing to add the following terms and definitions at N.J.A.C. 7:25-4.1 as they relate to each of the two lists. The term "list of endangered species" is added and defined to clearly describe that this list incorporates the two-tiered statutory definition of "endangered species" and the consequent inclusion of species with endangered and threatened conservation statuses to represent the two levels of endangerment, those species in immediate jeopardy and those for which jeopardy is likely in the foreseeable future. The term "list of regulated nongame species" is proposed to be added for consistency and the definition, consistent with the above amendment to the name of the list of endangered species, makes it clear that the list of regulated nongame species includes only those nongame species that the Department regulates pursuant to N.J.A.C. 7:25-4, and further describes that the

list of regulated nongame species includes the species conservation status designations securestable (S), undetermined-unknown (U), and special concern (SC).

The Department is also proposing to amend the section heading at N.J.A.C. 7:25-4.17 from "List providing conservation status of New Jersey's indigenous nongame wildlife species" to "List of regulated nongame species." The list is not intended to be a comprehensive list of all wildlife in the State that meet the definition of "nongame," but rather the list identifies nongame species that the Department regulates pursuant to the ENSCA and the implementing rules.

The Department proposes to define the term "indigenous" at N.J.A.C. 7:25-4.1 to clarify that the term does not apply to animals that are not native to the State, or to animals otherwise native to North America that only occasionally and unpredictably occur within the State.

# Proposed Additions, Removals, and Conservation Status Updates to the List of Endangered Species at N.J.A.C. 7:25-4.13

Since 1998, the Department has employed a methodology known as the Delphi Technique (Delphi) to assess the status of the State's indigenous wildlife and to develop recommended changes to the list of endangered species at N.J.A.C. 7:25-4.13 and the nongame species list at N.J.A.C. 7:25-4.17. Guided by the application of this investigative method, the Department has amended the lists at N.J.A.C. 7:25-4.13 and 4.17 four times, in 1999 (31 N.J.R. 1923(b)), 2002 (34 N.J.R. 1265(b)), 2003 (35 N.J.R. 1669(a)), and 2012 (44 N.J.R. 451(a)). The proposed amendments to the lists reflect the results of the Department's most recent status assessments using the Delphi, conducted between 2009 and 2020, for the following taxonomic groups: freshwater mussels (2012), crayfish and fairy shrimp (2010), butterflies (2015), freshwater fish (2016), amphibians and reptiles (2016), birds (2020), land mammals (2012), and

marine mammals (2009) (note that the years in parenthesis are years the Department completed its report).

The Department's application of the Delphi to the species status assessments comprises a statistically verifiable process for establishing consensus among a group of experts - in this case, a group of wildlife experts. The process includes review and analysis of information relating to populations, distribution, habitat needs, and other biological and ecological data relevant to each species under review compiled by the Department's biologists from internal and external sources and/or contributed by the experts during the review. These experts, individuals from within and from outside the Department and State government, review the status of nongame wildlife species and share expert opinions and data through an iterative process administered by the Department (Clark, Kathleen E.; Applegate, James E.; Niles, Lawrence J.; and Dobkin, David S. 2006. *An Objective Means of Species Status Assessment: Adapting the Delphi Technique*. Wildlife Society Bulletin 34(2):419-425.

https://www.nj.gov/dep/fgw/ensp/pdf/speciesstatusassessment.pdf). The reviewers consider available data on species population and trends, productivity, survival and mortality factors, habitat requirements, and threats to populations and habitats. During the iterative process, reviewers seek to reach consensus on the appropriate status of each species using the classifications of endangered (E), threatened (T), special concern (SC), secure-stable (S), undetermined-unknown (U), or not applicable (which includes species that may have been extirpated from the State). The Department has used these conservation statuses to classify species since 2012. 44 N.J.R. 451(a). For bird species, status is assigned separately for breeding and non-breeding populations in the State. The breeding population is the population during the nesting season of spring and summer, with actual dates of the nesting seasons varying among

species. The non-breeding population is the population in the State during the rest of the year outside the breeding season, or in other words, the population present during the winter and/or during the fall and/or spring migrations.

Upon completion of the Delphi status assessment for each species group, the results are compiled into a written report (known as a draft species status review report). In addition, for those species for which the Delphi failed to reach consensus, Department staff review the information presented by the Delphi panelists during their iterative review, including the experts' anonymous status votes for each species and the justifications provided by the panelists; all data and other information provided during the Delphi review; and any other relevant data or information available, to develop a recommendation for maintaining or changing the species' status. The draft species status review report, including staff recommendations for non-consensus species, is provided to the Department's ENSAC at least one week prior to its public meeting at which the results of the status assessment are presented and discussed. At the same time, the draft reports are also posted to the Department's website (https://nj.gov/dep/fgw/ensp/species assessment.htm). ENSAC is a committee of experts actively involved in the conservation of wildlife and was established pursuant to N.J.S.A. 23:2A-7(e) and N.J.A.C. 7:25-4.18 to advise and assist the Commissioner of the Department in carrying out the intent of ENSCA. Meetings of ENSAC are conducted in accordance with the Senator Byron M. Baer Open Public Meetings Act (N.J.S.A. 10:4-6 et seq.) with public notice, including proposed agendas, provided in advance.

At such a public meeting, ENSAC members first review and discuss the consensus status determinations reached through the Delphi review in each of the draft species status review reports. A single vote is generally taken to recommend status for those species for which the

Delphi resulted in consensus among experts regarding status. Then, ENSAC reviews and discusses staff recommendations for each of those species for which there was no consensus amongst experts regarding status. A separate vote is taken regarding ENSAC's recommendations for the "non-consensus" species, either individually or in groups. ENSAC members may ask staff to develop additional information or respond to specific questions that require postponing voting on recommendations to a future meeting. Opportunity is provided for public comment before any vote taken by the Committee. The results of the ENSAC votes regarding status recommendations are included within appendices to the final species status review reports that are published on the Department's website. The species status review reports that guided the Department's present proposed amendments in this rulemaking are available on the

Given the time elapsed since the most recent status assessments were completed, in 2021 the Department's wildlife biologists re-examined the results of the status assessments as documented in the final species status review reports to evaluate whether there was new information that was available from within the Department or in published sources relevant to the species' status, trends, or threats. The biologists reviewed such new information to assess whether the information would likely warrant changes to the status recommendations contained within the reports. For all but one species, the Department determined that there was no new information sufficient to require a more comprehensive reassessment using the Delphi and that the status recommendations provided by the existing reviews remained valid. For one species, the Bald Eagle's breeding season population, the Department concluded that a new assessment was warranted because of the three years of data showing a significant population increase in the State since the previous Delphi status assessment was completed in 2018. The Department

administered a new single species status assessment using the Delphi in 2021 and prepared the updated draft single-species Bald Eagle Status Review Report in March 2021 that was provided to ENSAC prior to, and reviewed at, its regular public meeting of May 19, 2021. ENSAC concurred with the recommendation to change the status of breeding Bald Eagle from E on the endangered species list to SC on the nongame species list, as reflected in Table 3 below. At that ENSAC meeting, Department staff also presented their summary of reexamination of the previously completed status reviews; ENSAC concurred with the staff recommendation that the status determinations reached though those reviews remained valid with the exception of the Bald Eagle (breeding) status determination.

Table 2 below provides a numeric summary of the proposed amendments to the list of endangered species at N.J.A.C. 7:25-4.13 by taxonomic group. Table 3 below provides the specific proposed status changes for each species. In these tables and in the explanation of changes below, the changes are grouped and summarized based on whether the changes represent reduced conservation concern (improved conservation status) or increased conservation concern (worsened conservation status). Species with a reduced conservation concern are those with a current conservation status of endangered (E in tables), which the Department proposes to change to threatened (T in tables), and those with a current conservation status of endangered, which the Department proposes to move to the nongame species list at N.J.A.C. 7:25-4.17 (noted as "ng" in the tables) with a conservation status of secure-stable, special concern, or undetermined-unknown (S, SC, and U, respectively, in tables). Species counted as having an increased conservation concern are those with a current conservation status of threatened on the nongame species list, which the Department proposes to move to the list of endangered species with a conservation status of endangered (E); species listed as secure-stable (S), special concern

(SC), or undetermined-unknown (U) on the nongame species list, which the Department proposes to move to the list of endangered species with a conservation status of endangered (E) or threatened (T); and species newly listed as threatened (T) or endangered (E) that did not previously appear on either the list of endangered species or the nongame species list (noted as "nl" in tables).

Table 2. Summary of proposed additions, deletions, and conservation status changes to list of endangered species at N.J.A.C. 7:25-4.13 tabulated by species group and whether the proposed change in conservation status represents increased or reduced conservation concern (excludes additions and deletions made solely due to proposed restructuring of the lists). See Table 1 and rule text.

	Redu	ced conser	vation								
		concern		Increased conservation concern							
SPECIES GROUPS	E to T	E to ng (S, SC or U)	Total	ng (T) to E	ng (S or SC) to T or E	ng (U) to T or E	nl to T or E	Total			
Bees	-	-	-	-	-	-	1	1			
Butterflies	-	-	-	1	6	*	4*	11			
Freshwater Fish	-	-	-	-	-	-	4	4			
Amphibians	1	-	1	-	-	-	-	-			
Reptiles	-	-	-	1	1	1	-	3			
Birds (breeding)	1	1	2	-	4	-	1	5			
Birds (non-breeding)	-	-	-	1	1	-	-	2			
Land Mammals	1	-	1	-	-	4	-	4			
TOTAL	3	1	4	3	12	5	10	30			

ng = species listed on the nongame species list at N.J.A.C. 7:25-4.17

nl = not listed, that is, species not currently appearing on either the list of endangered species at N.J.A.C. 7:25-4.13 or the nongame species list at N.J.A.C. 7:25-4.17

 $<sup>\</sup>dot{E}$  = endangered conservation status on the list of endangered species at N.J.A.C. 7:25-4.13

T = threatened conservation status as currently included on the nongame species list at N.J.A.C. 7:25-4.17 or as proposed to be included on the list of endangered species at N.J.A.C. 7:25-4.13 per proposed definition and structural change

S = secure-stable conservation status on the nongame species list at N.J.A.C. 7:25-4.17

SC = special concern conservation status on the nongame species list at N.J.A.C. 7:25-4.17

U = unknown/undetermined conservation status on the nongame species list at N.J.A.C. 7:25-4.17

<sup>\*</sup> Pursuant to the Department's policy of only including invertebrate species with a conservation status of "special concern" (SC) on the nongame species list at N.J.A.C. 7:25-4.17, these four butterfly species are not currently listed (nl); however, their unpublished/internal conservation status determined by the previous butterfly status assessment (2015) was unknown/undetermined (U).

Table 3. Proposed amendments to the list of endangered species at N.J.A.C. 7:25-4.13 based on Delphi species status assessments or Federal ESA listing, including additions, removals, and conservation status changes. Threatened (T) species proposed to be moved to the list of endangered species from the nongame species list with no change to conservation status are not included (see Table 1). Proposed amendments to species common and/or scientific names shown with deleted old/incorrect name shown in brackets, and updated/corrected name shown in boldface. Species with name changes only (common and/or scientific name) are not included in this table (see Table 6).

		Current Conservation	Proposed Conservation
Species	Scientific name	Status	Status
REDUCED CONSERVATION CONCERN			
Amphibians:			
[Southern] Cope's Gray Treefrog	[Hyla] <b>Dryophytes</b> chrysoscelis	E	T
Birds (breeding):			
Bald Eagle	Haliaeetus leucocephalus	E	ng (SC)
Peregrine Falcon	Falco peregrinus	E	T
Land Mammals:			
Bobcat	Lynx rufus	E	T
INCREASED CONSERVATION CONCERN			
Insects:			
Bees:			
Rusty-patched Bumble Bee	Bombus affinis	nl	E
Butterflies:			
Acadian Hairstreak	Satyrium acadica	nl*	E
Common Roadside-Skipper	Amblyscirtes vialis	nl*	T
Dotted Skipper	Hesperia [slossonae] <b>a.</b> attalus	ng (SC)	T
Gray Comma	Polygonia progne	nl*	T
Georgia [(Lakehurst)]Satyr	Neonympha areolatus [septentrionalis]	ng (SC)	T
Hoary Elfin	Callophrys polios	ng (SC)	T
Leonard's Skipper	Hesperia leonardus	ng (SC)	T
Northern Metalmark	Calephelis borealis	ng (SC)	E
Pepper and Salt Skipper	Amblyscirtes hegon	nl*	T
[Silver-bordered] Myrina Fritillary	Boloria [selene] <b>m.</b> myrina	ng (T)	E
Two-spotted Skipper	Euphyes bimacula	ng (SC)	T
<u>Fish</u> :			
Atlantic Sturgeon	Acipenser oxyrinchus	nl	E
Bridle Shiner	Notropis bifrenatus	nl	E
Ironcolor Shiner	Notropis chalybaeus	nl	E

Species	Scientific name	Current Conservation Status	Proposed Conservation Status
Slimy Sculpin	Cottus cognatus	nl	T
Reptiles:			
[Atlantic]Green Sea Turtle	Chelonia mydas	ng (T)	E
[Northern] Eastern Copperhead [Snake]	Agkistrodon contortrix [mokasen]	ng (SC)	T
Northern [Scarlet Snake] Scarletsnake	Cemophora coccinea copei	ng (U)	T
Birds (breeding):			
Barn Owl	Tyto alba	ng (SC)	T
Eastern Meadowlark	Sturnella magna	ng (SC)	T
Kentucky Warbler	Geothlypis formosa	ng (SC)	T
King Rail	Rallus elegans	nl **	E
Saltmarsh Sparrow	[Ammodramus caudacutus] <b>Ammospiza</b> caudacuta	ng (SC)	T
Birds (non-breeding):			
Black Rail	Laterallus jamaicensis	ng (T)	E
Golden-winged Warbler	Vermivora chrysoptera	ng (SC)	E
Mammals:			
Land Mammals:			
Eastern Small-footed [Bat] Myotis	Myotis leibii	ng (U)	E
[Keen] Northern Myotis	Myotis [keenii]septentrionalis	ng (U)	E
Little Brown [Bat] Myotis	Myotis lucifugus	ng (U)	E
[Tri-colored] Tricolored Bat	Perimyotis subflavus	ng (U)	E

ng = Species listed on the nongame species list at N.J.A.C. 7:25-4.17.

nl = Not listed, that is, species not currently appearing on either the list of endangered species at N.J.A.C. 7:25-4.13 or the nongame species list at N.J.A.C. 7:25-4.17.

E = Endangered conservation status on the list of endangered species at N.J.A.C. 7:25-4.13.

T = Threatened conservation status as currently included on the nongame species list at N.J.A.C. 7:25-4.17 or as proposed to be included on the list of endangered species at N.J.A.C. 7:25-4.13 per proposed definition and structural change.

S = Secure/stable conservation status on the nongame species list at N.J.A.C. 7:25-4.17.

SC = Special concern conservation status on the nongame species list at N.J.A.C. 7:25-4.17.

U = Unknown/undetermined conservation status on the nongame species list at N.J.A.C. 7:25-4.17.

<sup>\*</sup> Pursuant to the Department's policy of only including invertebrate species with a conservation status of "special concern" (SC) on the nongame species list at N.J.A.C. 7:25-4.17, these four butterfly species are not currently listed (nl); however, their unpublished/internal conservation status determined by the previous butterfly status assessment (2015) was unknown/undetermined (U).

The proposed amendments to the list of endangered species reflect reduced conservation concern for four species and increased conservation concern for 30 species. The four species with reduced conservation concern include three species currently listed as endangered (E), proposed to be changed to threatened (T): Cope's Gray Treefrog, Peregrine Falcon, and Bobcat. One species, the Bald Eagle, currently listed as endangered (E), is proposed to be moved to the nongame species list with a status of special concern (SC). The species for which the conservation concern has increased include 20 species that are currently listed on the nongame species list, specifically, the butterfly species Dotted Skipper, Georgia Satyr, Hoary Elfin, Leonard's Skipper, Northern Metalmark, Myrina Fritillary, and Two-spotted Skipper; the reptile species Green Sea Turtle, Eastern Copperhead, and Northern Scarletsnake; the breeding bird species Barn Owl, Eastern Meadowlark, Kentucky Warbler, and Saltmarsh Sparrow; the nonbreeding bird species Black Rail and Golden-winged Warbler; and the mammal species Eastern Small-footed Myotis, Northern Myotis, Little Brown Myotis, and Tricolored Bat. In addition, 10 species that are not listed on either the existing list of endangered species or the existing nongame species list are proposed to be added: the Rusty-patched Bumble Bee; the butterflies Arcadian Hairstreak, Common Roadside-skipper, Gray Comma, and Pepper and Salt Skipper; the fish Atlantic Sturgeon, Bridle Shiner, Ironcolor Shiner, and Slimy Sculpin; and a breeding bird, King Rail.

Species with Proposed Conservation Status Change Representing Reduced Conservation

Concern

Amphibians:

Among amphibians on the existing list of endangered species, the conservation status improved for one species, Cope's Gray Treefrog, which the Department is proposing to change from endangered (E) to threatened (T). Although still restricted to the four or five southern-most counties, the range of this species appears to be expanding northward, potentially due to the shorter periods of cold and generally warmer winters associated with global climate change. As a range-edge species in New Jersey that continues to have limited distribution in the State and that is sensitive to changes in precipitation and hydrology, Cope's Gray Treefrog remains vulnerable. *Birds (breeding):* 

Both bird species for which the conservation status of breeding populations has improved are raptors whose populations have recovered in response to diminished exposure to persistent organochlorine pesticides banned in the 1970s. The Bald Eagle's breeding population is proposed to change from endangered (E) on the list of endangered species to special concern (SC) on the nongame species list and the Peregrine Falcon's breeding population is changing from endangered (E) to threatened (T).

#### Land Mammals:

The Bobcat is the only mammal species included on the existing list of endangered species for which the conservation status is improved. The Department is proposing the change in conservation status from endangered (E) to threatened (T), as Bobcat populations have increased within the area north of Interstate 80 and west of Interstate 287, which is a relatively small portion of their historical range. They remain threatened because of their limited geographic distribution and very low densities in areas of the State they historically occupied, namely in central and southern New Jersey.

Species with Proposed Conservation Status Change Representing Increased Conservation

Concern

Insects - Bees:

The Rusty-patched Bumble Bee, a previously common pollinator in New Jersey, is proposed to be listed as endangered (E) based on its Federal listing in 2017 as endangered pursuant to the ESA (82 FR 3186). The species experienced dramatic population declines throughout most of its range in the 1980s and 1990s. The U.S. Fish and Wildlife Service (USFWS) cites interaction between an introduced pathogen and exposure to pesticides as primary factors and notes that remaining populations continue to be threatened by "... a number of interacting stressors, including pathogens, pesticides, habitat loss and degradation, non-native and managed bees, the effects of climate change, and small population biology" (U.S. Fish and Wildlife Service. 2016. Species Status Assessment for Rusty-patched Bumble Bee (Bombus aff—nis). https://ecos.fws.gov/ServCat/DownloadFile/120109; and U.S. Fish and Wildlife Service. 2021. Recovery Plan for the Rusty-patched Bumble Bee (Bombus affinis). Midwest Regional Office, Bloomington, MN.

https://www.fws.gov/sites/default/files/documents/RPBB%20Final%20Recovery%20Plan\_0721 2021.pdf). While no populations have been documented in New Jersey since 1999, the Rusty-patched Bumblebee Recovery Plan includes New Jersey within "recovery unit" four (Richardson, Leif L.; Guzman, Laura Melissa; Jackson, Hanna; Johnson, Sarah; Morandin, Lora; and M'Gonigle, Leithen. 2022. *Bumble bee occurrences of North America from 1805 - 2020*. https://zenodo.org/records/6620648). Re-establishment of the species within the State depends upon the success of conservation efforts in this State and elsewhere, but remains possible. The

possibility of the discovery of previously undocumented populations of this species in New Jersey cannot be ruled out.

## Insects - Butterflies:

The proposed addition of 11 species of butterflies, Acadian Hairstreak (endangered -E), Common Roadside-Skipper (threatened -T), Dotted Skipper (threatened -T), Gray Comma (threatened -T), Georgia Satyr (threatened -T), Hoary Elfin (threatened -T), Leonard's Skipper (threatened -T), Northern Metalmark (endangered -E), Pepper and Salt Skipper (threatened -T), Myrina Fritillary (endangered-E), and Two-spotted Skipper (threatened -T), to the list of endangered species at N.J.A.C. 7:25-4.13 comprises the largest proposed addition for a single taxonomic group. All species, except Acadian Hairstreak, Common Roadside-Skipper, Gray Comma, and Pepper and Salt Skipper are on the existing nongame species list with a conservation status of special concern (SC) or threatened (T). The above four species were excluded from the existing nongame species list because a 1998 status review concluded that each had a status of undetermined/unknown (U) and it has been the Department's policy to include only those invertebrate species with a status of special concern (SC) on the nongame species list.

Butterflies are among the many pollinating insects suffering significant declines in population numbers and distribution. The primary factors associated with the worsening statuses of these butterflies are similar to the factors cited above for the Rusty-patched Bumble Bee and are reflected in the Delphi status assessments for these species. Factors include habitat loss and degradation resulting from loss of natural successional and disturbance processes, warming climate, pesticides, and loss of critical food and nectar plants to competition from invasive non-

native plant species and to damage by invasive insects and diseases. The three species being proposed as endangered (Acadian Hairstreak, Northern Metalmark, and Myrina Fritillary) are among the State's most imperiled butterflies, with no documented sightings of Acadian Hairstreak or Myrina Fritillary in the past decade and Northern Metalmark reduced to very few (three or four) very small occurrences.

#### Fish:

The National Oceanic and Atmospheric Administration - National Marine Fisheries

Service (NOAA-NMFS) listed the population of Atlantic Sturgeon indigenous to New Jersey

waters as endangered pursuant to the ESA in 2012 (77 FR 5879). NOAA-NMFS identifies the

Sturgeon's primary threats as unintended catch (also known as bycatch) in some commercial

fisheries, dams that block access to spawning areas, poor water quality that harms development

of Sturgeon offspring, dredging of spawning areas, water withdrawals from rivers, and vessel

strikes (<a href="https://www.fisheries.noaa.gov/species/atlantic-">www.fisheries.noaa.gov/species/atlantic-</a>

sturgeon#:~:text=The%20most%20significant%20threats%20to,from%20rivers%2C%20and%2
Ovessel%20strikes
Ovessel%20strikes
Output
Department is proposing to add Atlantic Sturgeon to the
State's list of endangered species with a conservation status of endangered (E).

In the early 2000s, the Department began a six-year study as part of the development of a Fish Index of Biological Integrity in the New Jersey Coastal Plain. That study included sampling in hundreds of locations to determine the status of fish species related to historical distributions and to document occurrences in previously unsampled areas across a gradient of habitats with varied human impacts. The Department's fisheries biologists, using improved protocols, conducted additional freshwater fish sampling projects throughout the State. This sampling

contributed to a much-improved understanding of species abundance and distribution. The availability of these data was crucial to conducting the first freshwater fish Delphi status review in 2016 that resulted in the proposed additions of three species of freshwater fish to the list of endangered species. Consequently, these species are new to the list of endangered species and do not appear on the existing nongame species list. Two species, Bridle Shiner and Ironcolor Shiner, are proposed to be listed as endangered (E), and one, Slimy Sculpin, as threatened (T). These two shiner species are considered New Jersey's two most vulnerable minnows that are susceptible to changes in habitat, water quality, and predation from non-native fishes. They are regionally imperiled. The Slimy Sculpin is a range-edge species whose southern range limit includes New Jersey. The Slimy Sculpin's relatively low and disjunct population occurrence, along with its preference for small cold streams, means that its survival prospects in the State are threatened by warming climate and land use changes.

# Reptiles:

For three species of reptiles, Green Sea Turtle, Eastern Copperhead, and Northern Scarletsnake, the proposed amendments recognize worsening conservation status. The Department is proposing to move the Green Sea Turtle, currently listed as threatened (T), from the nongame species list to the list of endangered species with a status of endangered (E). In addition, the Eastern Copperhead (listed in the existing lists as being of special concern – SC) and Northern Scarletsnake (currently listed as undetermined or unknown – U) are proposed to be moved to the list of endangered species with a conservation status of threatened (T). Green Sea Turtles continue to be negatively impacted by range-wide offshore impacts related to human activities, including boat strikes and net entanglements, when within New Jersey waters. Both

Eastern Copperheads and Northern Scarletsnakes have limited distributions and ranges in New Jersey due to the specificity of their habitat needs (forests with open canopies and rock features and forests and fields within sandy soils, respectively) and the ongoing and historical conversion of those habitats to developed areas continues to isolate and fragment extant populations. Among other ongoing threats are disease, deliberate killing as humans encroach upon their activity ranges, and depredation by "subsidized" predators (predatory species, such as Striped Skunk, Raccoon, and Red Fox, whose population densities are increased directly or indirectly by human enhancement of resource availability that would otherwise limit populations). Insufficient understanding of these species' specific habitat use has also made it difficult to protect or minimize harm to these species and/or their critical habitat features (that is, dens, gestation site/nests) during construction projects, habitat management activities, and recreational activities.

# Birds (Breeding and Non-Breeding):

For the breeding populations of five species and the non-breeding populations of two species, the proposed amendments to the endangered species list recognize worsened conservation statuses.

Sea-level rise, land subsidence, and a reduction in the number and acreage of salt hay farms have resulted in loss of high marsh habitat along coastal New Jersey on which many wildlife species depend and are the primary factors in the worsening conservation status of Black Rail (non-breeding) and Saltmarsh Sparrow (breeding). Black Rail (non-breeding) is proposed to change from threatened (T) to endangered (E), while Saltmarsh Sparrow (breeding) is proposed to change from nongame special concern (SC) to threatened (T). The eastern population of the Black Rail was listed as Federally threatened in 2020 and the breeding population is currently

listed as endangered (E) in the State (with no change in status proposed). The species reaches the northern edge of its range along the Atlantic coast in New Jersey and, as such, its populations in the State are at greater risk of local extirpation. The species is a short-distance migrant; so, with few Black Rails nesting north of New Jersey, there is considerable overlap between the breeding and non-breeding populations and consequently the conservation status of the nonbreeding populations is also endangered (E).

Threatened status is proposed for Saltmarsh Sparrow (breeding) based on population declines averaging nearly nine percent annually between 1998 and 2012 (Greenlaw, Jon S., Elphick, Chris S.; W. Post, William; and Rising, James D. 2020. *Saltmarsh Sparrow* (*Ammospiza caudacuta*). Version 1.0. In Birds of the World (P. G. Rodewald, Editor) Cornell Lab of Ornithology, Ithaca, NY, USA. <a href="https://doi.org/10.2173/bow.sstspa.01">https://doi.org/10.2173/bow.sstspa.01</a>). The U.S. Fish and Wildlife Service indicates an overall decline of 87 percent in Saltmarsh Sparrow populations since 1998 (Hartley, M.J. and Weldon, A.J. eds. 2020. *Saltmarsh Sparrow Conservation Plan*. Atlantic Coast Joint Venture. <a href="https://www.acjv.org/documents/SALS">www.acjv.org/documents/SALS</a> plan final.pdf).

Both the Barn Owl and the Eastern Meadowlark are strongly associated with agricultural landscapes in their eastern U.S. range, including New Jersey, and their worsening conservation statuses are a result of decreases in agricultural land, as well as changes in agricultural practices. The breeding populations for both species are proposed to change from nongame special concern (SC) to threatened (T). Barn Owl population status in southern New Jersey is closely associated with the populations in surrounding states and the New Jersey population decline is indicative of regional declines associated with ongoing urban sprawl, new and expansive housing developments in former agricultural lands, and agricultural changes (for example, loss of grassland habitats, loss of dairy farms/pastures, loss of salt hay farms, and emphasis on row

crops). See Colvin, B.A., and Hegdal, P.L. 2022. Annual Report on the New Jersey Study Area. 2022. Unpublished report by The Barn Owl Research Foundation. In many parts of their range, pesticides (especially rodenticides) are associated with Barn Owls' declines (Marti, C. D., A. F. Poole, L. R. Bevier, M.D. Bruce, D. A. Christie, G. M. Kirwan, and J. S. Marks (2020). Barn Owl (Tyto alba), version 1.0. In Birds of the World (S. M. Billerman, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.brnowl.01). Similar factors are involved in the worsening status of breeding Eastern Meadowlarks. Meadowlarks are obligate grassland birds adapted to nesting in large open native grasslands. Most habitats now used by breeding Eastern Meadowlarks in New Jersey are an artifact of other land uses, such as hayfields, pastures, airports, and capped landfills, and all require some type of active management (mowing, burning, grazing) to remain suitable as grassland habitat. Habitat loss comes mostly from development (residential and solar), succession of fields to woodlands, and conversion of hayfields and pastures to corn and/or soybean. Habitat degradation occurs mostly through residential and commercial development adjacent fields/farms (which reduces the ambient size of large fields), mowing, and reducing prey abundance from insecticide use. Population declines also result from reduced productivity/direct mortality through mowing/tilling hayfields and airfields, and overgrazing pastures during the nesting season (Jaster, Levi. A.; Jensen, William E.; Lanyon, Wesley E.; and Mlodinow, Steven G. 2022. Eastern Meadowlark (Sturnella magna), Version 1.1. In Birds of the World (P. Pyle and N. D. Sly, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.easmea.01.1).

The breeding population of King Rail, previously considered by the Department as a game species with a closed season, is proposed to be added to the list of endangered species with a conservation status of endangered (E). Breeding populations have declined precipitously

throughout their range, but particularly in the northern part of their range (Pickens, Bradely. A. and Meanley, Brooke, 2020. *King Rail (Rallus elegans)*., Version 1.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA.

https://doi.org/10.2173/bow.kinrai4.01). While the King Rail was previously considered a game species in New Jersey, the hunting season for this rail has been closed since 2002. Very limited hunting of the species in nearby states has not likely played a role in the species' decline. New Jersey is near the northern edge of the King Rail breeding range along the Atlantic coastal plain, and as such, the King Rail population is particularly affected by its range-wide decline. King Rails occupy primarily freshwater wetlands that are especially sensitive to hydrological changes, saltwater intrusion, conversion to open water, and other factors that adversely alter vegetation structure and habitat suitability.

The non-breeding population of Golden-winged Warbler is proposed to change from special concern (SC) to endangered (E). No change is proposed for the status of the breeding population, listed in the existing rules as endangered (E). The species is declining in areas outside of New Jersey that comprise the source of New Jersey's non-breeding population. In addition, loss of quality stopover habitat in New Jersey typically provided by early forest successional stages and other processes that create a dense understory and well-developed ground cover, such as that occurs in regenerating forests, are contributing to declines of migratory populations in New Jersey (Confer, John. L.; Hartman, Patricia; and Roth, Amber. 2020. *Golden-winged Warbler (Vermivora chrysoptera)*, Version 1.0. In Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA.

https://doi.org/10.2173/bow.gowwar.01).

Similar factors are the basis for the proposed changes in status for Kentucky Warbler – breeding population from special concern (SC) to threatened (T). Breeding habitat loss in the form of forest fragmentation is likely the main cause of declines of breeding populations (McDonald, Mary. Victoria. 2020. *Kentucky Warbler (Geothlypis formosa)*, Version 1.0. In Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <a href="https://doi.org/10.2173/bow.kenwar.01">https://doi.org/10.2173/bow.kenwar.01</a>).

#### Land Mammals:

The mammal species proposed for addition to the list of endangered species, the Eastern Small-footed Myotis, Little Brown Myotis, Northern Myotis (Northern Long-eared Bat), and Tricolored Bat, are bat species that overwinter in caves and abandoned mines. Each of these species were previously included on the nongame species list with a status of undetermined-unknown (U). These bats have been decimated by the disease known as white-nose syndrome, a fungal infection caused by *Pseudogymnoascus destructans*, which research suggests was likely introduced from Europe or Asia. White-nose syndrome was first documented in New York State in 2006. The Department proposes a conservation status of endangered (E) for all four species based on the Department's status review completed in 2012. Since completion of the Department's status review in 2012, on November 30, 2022, the USFWS published a final rule reclassifying the Northern Long-eared Bat (Northern Myotis) from threatened to endangered (87 FR 73488). The Federal ESA status change became effective March 31, 2023. USFWS also proposes to list the Tricolored Bat as "endangered" pursuant to the ESA, with a final determination expected in 2024. USFWS is undertaking a species status assessment for the Little

Brown Bat (Little Brown Myotis) in response to notice provided to USFWS by non-government organizations regarding their intent to petition for listing pursuant to the ESA.

Among the species proposed for addition to, deletion from, or status change within the list of endangered species described above, the proposed amendments also include updates and/or corrections to the common name (five species), scientific name (two species), or both common and scientific names (five species).

The name changes noted for the Keen Myotis (Myotis Keenii) warrant additional explanation as they entail more than a simple change to the common and scientific names.

Keen's Myotis (the common name on the existing nongame species list, "Keen Myotis," is incorrect - Keen's Myotis is the correct common name) and Northern Myotis (also known as Northern Long-eared Bat – proposed to be added to the list of endangered species with a status of endangered (E)), were formerly classified as subspecies of a single species. More recently, however, Keen's Myotis (Myotis keenii) and Northern Myotis (Myotis septentrionalis) have been recognized as distinct species, with Keen's Myotis occupying parts of British Columbia in Canada and parts of Washington and southeast Alaska in the United States, and the Northern Myotis residing in much of the United States and southern Canada east of the Rocky Mountains, including New Jersey (see NatureServe Explorer at <a href="https://explorer.natureserve.org/Taxon/ELEMENT\_GLOBAL.2.105436/Myotis\_keenii">https://explorer.natureserve.org/Taxon/ELEMENT\_GLOBAL.2.102615/Myotis\_septentrionalis</a>). Consequently, the Northern Myotis (Myotis septentrionalis) is the species indigenous to New

Jersey and, as discussed above, proposed for listing as endangered (E).

Nongame Species List (N.J.A.C. 7:25-4.17) – Amendments to Introductory Paragraph, List

Additions, Removals, and Conservation Status Updates, and Repeal of N.J.A.C. 7:25-21

Amendments to Introductory Paragraph:

The Department is proposing to amend the paragraph that introduces and describes the table providing the nongame species list at N.J.A.C. 7:25-4.17 to address freshwater fish. Freshwater fish are a group that has not previously been included on the list because, as noted above in the discussion of the addition of freshwater fish to the list of endangered species, there had been no comprehensive assessment for freshwater fish until the Delphi status review completed in 2016 that followed several years of Department data collection and analysis. The data collection and analysis, along with the Delphi status review, formed the basis for amendments to the Fish Code at N.J.A.C. 7:25-6, adopted in 2018, that prohibited the harvest of several species of native freshwater fish previously available to harvest (50 N.J.R. 801(b)). The changes to the Fish Code more clearly established that several freshwater fish species met the statutory definition of nongame at N.J.S.A. 23:2A-3 and are appropriate to include on the Department's nongame species list at N.J.A.C. 7:25-4.17. Consequently, the Department proposes to no longer exclude freshwater fish from the nongame species list. The proposed amended rule specifies that the nongame species list does not include any marine or diadromous (fish that migrate between freshwater and saltwater) species. These species are excluded from the nongame species list because the Department does not currently consider any of them to be nongame. For example, there are six to 12 marine shark species and two diadromous river herring species indigenous to New Jersey waters for which commercial and recreational harvest is currently closed. The closures are, however, a result of depleted stocks of these species, and a regulated harvest may resume when stocks recover sufficiently.

The Department also proposes to add freshwater fish to the groups for which only those species assigned a conservation status of special concern (SC) will be included on the nongame species list at N.J.A.C. 7:25-4.17. Pursuant to the existing rule, for all other vertebrate species groups already included (that is, mammals, birds, reptiles, and amphibians) the nongame species list includes all nongame species native to the eastern United States that regularly occur in the State. This means all indigenous nongame species for which a hunting, trapping, or commercial harvest season for the species has not been established pursuant to New Jersey Statutes Title 23, N.J.S.A. 13:1B-29 through 41, or rules adopted thereunder, or that are not included on the list of endangered species at N.J.A.C. 7:25-4.13. Vertebrate nongame species in these specific taxonomic classes may be assigned a conservation status of secure-stable (S), undeterminedunknown (U), or special concern (SC). For invertebrate species, however, the Department limits the existing listing at N.J.A.C. 7:25-4.17 to only those species for which the Department has determined their conservation status to be special concern (SC). The Department has previously described the basis for the exclusion of other invertebrate species from the list in the 2011 rulemaking amending the nongame species list (43 N.J.R. 87(a)), focusing on the fact that an allinclusive list would include many thousands of species and would confer the protections provided pursuant to N.J.S.A. 23:2A-1 et seq., to several common insect and other invertebrate species regarded as overabundant and/or as pest species, such as the common house fly or the ubiquitous mosquito. With the proposed inclusion of freshwater fish on the nongame species list, the Department is proposing to treat freshwater fish similarly to invertebrate species, although for somewhat different reasons.

For freshwater fish, the Department has determined that, based on the prohibitions on harvest and possession and the requirements for releasing unharmed indigenous fish species with

a closed season in the Fish Code at N.J.A.C. 7:25-6 and Department rules that address surface water quality and riparian habitats at N.J.A.C. 7:9B, the inclusion of freshwater fish species other than those determined to warrant special concern (SC) status would not substantively enhance their conservation. For species that warrant special concern (SC) status, the Department has determined that inclusion on the list of regulated nongame wildlife provides sufficient additional conservation benefit. The special concern (SC) designation gives attention to the conservation status and need of these species, which is important to the planning and policy functions of the Department and other State agencies whose activities may impact the species. Moreover, species with a conservation status of special concern (SC) and their habitats are afforded specific attention and protections within several existing Department land use and planning rules, such as the Forestry rules at N.J.A.C. 7:3, Flood Hazard Control Act rules at N.J.A.C. 7:13, Green Acres Program rules at N.J.A.C. 7:36, and Highlands Water Protection and Planning Act rules at N.J.A.C. 7:38.

List Additions, Removals, and Conservation Status Updates:

Table 4 below provides a numeric summary of the proposed amendments to the nongame species list at N.J.A.C. 7:25-4.17, including additions, removals, and conservation status changes, by species group. Table 5 provides the specific proposed additions, removals, and status changes for each species. In these tables, species categorized as "new" are those not appearing on either the existing list of endangered species or the existing nongame species list, while "removed" are those species listed on the existing nongame species list that are proposed to be removed from both the nongame species list and the list of endangered species. Note that for bird species, it is only the breeding populations that are new to the list. Categorization of conservation

status changes as to "neutral," "reduced conservation concern," and "increased conservation concern" are described below.

Table 4. Summary of proposed amendments to the nongame species list (N.J.A.C. 7:25-4.17). See below for description of column terms. The table does not include species moving to or from the list of endangered species (E to S, SC, or U) that have been included in Tables 1 through 3.

	(n		ew" – ısly listed –	nl)	Deleted	"Neutral <sup>1</sup> " change in conservation concern			Reduced conservation concern				Increased Conservation Concern	
	nl	nl	nl			S	U	U		T	T	SC		S
Species Group	to S	to U	to SC	total	total	to U	to S	to SC	total	to S	to SC	to S	total	to SC
Crayfish & Fairy Shrimp	-	-	1	1	-	-	-	-	-	-	-	-	-	-
Butterflies	-	-	9*	9	-	-	-	*	*	-	-	-	-	-
Freshwater Fish	-	-	6	6	-	-	-	-	-	-	-	-	-	-
Amphibians	-	2	-	2	1	-	1	1	2	-	-	1	1	2
Reptiles	-	-	1	1	-	1	5	3	10	-	-	-	-	2
Birds (breeding)	2**	-	-	2	-	3	-	-	3	1	1	5	7	8
Birds (non-breeding)	4	1	1	6	1	-	-	1	1	1	1	7	9	6
Land Mammals	-	1	-	1	-	-	12	5	17	-	-	-	-	-
Marine Mammals	-	-	-	-	8	-	4	2	6	-	-	-	-	-
Total	6	4	18	28	10	4	23	12	39	2	2	13	17	18

<sup>&</sup>lt;sup>1</sup> Change in status reflects an increase in available information rather than an increase or reduction in conservation concern. See text.

L = Not listed, that is, species not currently appearing on either the list of endangered species at N.J.A.C. 7:25-4.13 or the nongame species list at N.J.A.C. 7:25-4.17.

E = Endangered conservation status on the list of endangered species at N.J.A.C. 7:25-4.13.

T = Threatened conservation status as currently included on the nongame species list at N.J.A.C. 7:25-4.17 or as proposed to be included on the list of endangered species at N.J.A.C. 7:25-4.13 pursuant to the proposed definition and structural change.

S = Secure/stable conservation status on the nongame species list at N.J.A.C. 7:25-4.17.

SC = Special concern conservation status on the nongame species list at N.J.A.C. 7:25-4.17.

U = Unknown/undetermined conservation status on the nongame species list at N.J.A.C. 7:25-4.17.

<sup>\*</sup> Pursuant to the Department's policy for invertebrate species of only including species with a conservation status of "special concern" (SC) on the nongame species list at N.J.A.C. 7:25-4.17, these nine butterfly species are not currently listed (nl); however, their unpublished/internal conservation status determined by the previous butterfly Delphi status assessment was unknown/undetermined (U).

<sup>\*\*</sup> Breeding populations are new to list – list currently includes only non-breeding populations.

Table 5. Proposed amendments to nongame species list at N.J.A.C. 7:25-4.17, including additions, removals, and conservation status changes. Proposed amendments to species common and/or scientific names shown with deleted old/incorrect name shown in brackets, and updated/corrected name shown in boldface. Species with name changes only (common and/or Scientific name) are not included in this table (see Table 6).

		Current Conservation	Proposed Conservation
Species	Scientific name	Status	Status
NEW TO LISTS*			
Crayfish/Fairy Shrimp:			
Eastern Fairy Shrimp	Eubranchipus holmanii	nl	SC
Butterflies:			
Baltimore Checkerspot	Euphydryas phaeton	nl*	SC
Compton Tortoiseshell	Nymphalis I-album	nl*	SC
Dusted Skipper	Atrytonopsis hianna	nl*	SC
Eyed Brown	Lethe eurydice	nl*	SC
Hickory Hairstreak	Satyrium caryaevorus	nl*	SC
Monarch	Danaus plexippus	nl*	SC
Northern Oak Hairstreak	Satyrium avonius ontario	nl*	SC
Rare Skipper	Problema bulenta	nl*	SC
Sleepy Duskywing	Erynnis brizo	nl*	SC
Fish:			
American Brook Lamprey	Lethenteron appendix	nl	SC
Blackbanded Sunfish	Enneacanthus chaetodon	nl	SC
Comely Shiner	Notropis amoenus	nl	SC
Mud Sunfish	Acantharchus pomotis	nl	SC
Northern Hog Sucker	Hypentelium nigricans	nl	SC
Shield Darter	Percina peltata	nl	SC
Amphibians:			
Green Treefrog	<u>Dryophytes cinereus</u>	nl	U
Mid-Atlantic Coast Leopard Frog	<u>Lithobates kauffeldi</u>	nl	U
Reptiles:			
Northern Diamond-backed Terrapin	Malaclemys t.terrapin	nl	SC
•	mataciemys t.terrapin	111	50
Birds (breeding):		144	G.
Mississippi Kite**	Ictinia mississippiensis	nl**	S
Royal Tern**	Thalasseus maximus	nl**	S
Birds (nonbreeding):			
Audubon's Shearwater	Puffinus lherminieri	nl	S
Black Tern	Chlidonias niger	nl	S
Bicknell's Thrush	Catharus bicknelli	nl	SC
King Rail	Rallus elegans	nl	U

Species	Scientific name	Current Conservation Status	Proposed Conservation Status
Nelson's Sparrow	Ammospiza nelsoni	nl	S
Sandwich Tern	Thalasseus sandvicensis	nl	S
Land Mammals:			
Eastern Pygmy Shrew	Sorex hoyi	nl	U
"NEUTRAL" CONSERVATION STATUS CHA	•	lahla information	rather than an
increase or reduction in conservation concern. See t		naore information	ramer man an
Amphibians:			
Eastern Spadefoot	Scaphiopus holbrookii	U	SC
Four-toed Salamander	Hemidactylium scutatum	U	S
Reptiles:			
[Common]Eastern Musk Turtle	Sternotherus odoratus	U	S
Eastern Mud Turtle	Kinosternon s. subrubrum	S	U
Eastern [Rat Snake] Ratsnake	[Elaphe] <b>Pantherophis</b> alleghaniensis	U	S
[Eastern Redbelly]Turtle Northern Red-bellied			
Cooter	Pseudemys rubriventris	U	S
Eastern Smooth Earthsnake	Virginia v. valeriae	U	SC
Common Five-lined Skink	Plestiodon fasciatus	U	S
[Ground] Little Brown Skink	Scincella lateralis	U	SC
Northern Black Racer	Coluber c. constrictor	U	S
Smooth [Green Snake] Greensnake	Opheodrys vernalis	U	SC
Birds (breeding):			
Dark-eyed Junco	Junco hyemalis	S	U
White-throated Sparrow	Zonotrichia albicollis [Dendroica coronate] <b>Setophaga</b>	S	U
Yellow-rumped Warbler	coronata	S	U
Birds (nonbreeding):			
Eastern Whip-poor-will	[Caprimulgus]Antrostomus vociferus	U	SC
Land Mammals:			
Big Brown Bat	Eptesicus fuscus	U	SC
Eastern Chipmunk	Tamias striatus	U	S
Eastern Mole	Scalopus aquaticus	U	S
Eastern Red Bat	Lasiurus borealis	U	SC
Northern Hoary Bat	Lasiurus cinereus	U	SC
[Masked] Cinereus shrew	Sorex cinereus	U	S
Meadow Jumping Mouse	Zapus hudsonius	U	SC
Meadow Vole	[Microtis] Microtus pennsylvanicus	U	S
North American Porcupine	Erethizon dorsatum	U	S
North American Red squirrel	Tamiasciurus hudsonicus	U	S
Northern Short-tailed Shrew	Blarina brevicauda	U	S
[Pine] Woodland Vole	Microtus pinetorum	U	S
Silver-haired Bat	Lasioncycteris noctivagans	U	SC
Southern Red-backed [Mouse]Vole	Clethrionomys gapperi	U	S
Southern Flying Squirrel	Glaucomys Volans	U	S
Star-nosed Mole	Condylura cristata	U	S
White-footed [Mouse] <b>Deermouse</b>	Peromyscus leucopus	U	S

Species	Scientific name	Current Conservation Status	Proposed Conservation Status
Marine Mammals:		~ *******	
Bottlenose Dolphin	Tursiops truncatus	U	SC
Gray Seal	Halichoerus grypus	U	S
Harbor Porpoise	Phocoena phocoena	U	SC
Harbor Seal	Phoca vitulina	U	S
Harp Seal	Pagophilus groenlandicus	U	S
Hooded Seal	Cystophora cristata	U	S
REDUCED CONSERVATION CONCERN			
Amphibians:			
Fowler's Toad	Anaxyrus fowleri	SC	S
Birds (breeding):			
Blue-headed Vireo	Vireo solitarius	SC	S
Cattle Egret	Bubulcus ibis	Т	SC
Cooper's Hawk	Accipiter cooperii	SC	S
Hooded Warbler	[Wilsonia] <b>Setophaga</b> citrina	SC	S
Northern Parula	[Parula] <b>Setophaga</b> americana	SC	S
Osprey	Pandion haliaetus	Т	S
Worm-eating Warbler	Helmitheros vermivorum	SC	S
Birds (non-breeding):			
Bald Eagle	Haliaeetus leucocephalus	T	S
Cattle Egret	Bubulcus ibis	SC	S
Common Nighthawk	Chordeiles minor	SC	S
Gray-cheeked Thrush	Catharus minimus	SC	S
Northern Goshawk	Accipiter gentilis	SC	S
Peregrine Falcon	Falco peregrinus	SC	S
Red-headed Woodpecker	Melanerpes erythrocephalus	T	SC
Sharp-shinned Hawk	Accipiter striatus	SC	S
Whimbrel	Numenius phaeopus	SC	S
INCREASED CONSERVATION CONCERN			
Amphibians:			
[Northern] Eastern Cricket Frog	Acris [c.]crepitans	S	SC
Spotted Salamander	Ambystoma maculatum	S	SC
Reptiles:			
Eastern [Hognose] Hog-nosed Snake	Heterodon platirhinos	S	SC
Rough [Green Snake] Greensnake	Opheodrys aestivus	S	SC
Birds – breeding:			
Bank Swallow	Riparia riparia	S	SC
Blue-winged Warbler	Vermivora cyanoptera	S	SC
Chimney Swift	Chaetura pelagica	S	SC
Field Sparrow	Spizella pusilla	S	SC
Green Heron	Butorides virescens	S	SC
Prairie Warbler	[Dendroica] <b>Setophaga</b> discolor	S	SC

Species	Scientific name	Current Conservation Status	Proposed Conservation Status
Purple Martin	Progne subis	S	SC
Rose-breasted Grosbeak	Pheucticus ludovicianus	S	SC
Birds - nonbreeding:			
Black-billed Cuckoo	Coccyzus erythropthalmus	S	SC
Canada Warbler	[Wilsonia] <b>Cardellina</b> canadensis	S	SC
Olive-sided Flycatcher	Contopus cooperi	S	SC
Ruddy Turnstone	Arenaria interpres	S	SC
Rusty Blackbird	Euphagus carolinus [Ammodramus	S	SC
Saltmarsh Sparrow	caudacutus]Ammospiza caudacuta	S	SC
REMOVED FROM LISTS**			
<u>Amphibians</u>			
Upland Chorus Frog	Pseudacris ferarium	U	nl
Birds - nonbreeding:			
Wilson's Phalarope	Phalaropus tricolor	S	nl
Marine Mammals:			
Beluga Whale	Delphinapterus leucas	U	nl
Blainsville's Beaked Whale	Mesoplodon densirostris	U	nl
Cuvier's Beaked Whale	Ziphius cavirostris	U	nl
Dwarf Sperm Whale	Kogia simus sima	U	nl
Gervais' Beaked Whale	Mesoplodon europaeus	U	nl
Killer Whale	Orcinus orca	U	nl
Pygmy Sperm Whale	Kogia breviceps	U	nl
True's Beaked Whale	Mesoplodon mirus	U	nl

nl = Not listed, that is, species not currently appearing on either the list of endangered species at N.J.A.C. 7:25-4.13 or the nongame species list at N.J.A.C. 7:25-4.17.

E = Endangered conservation status on the list of endangered species at N.J.A.C. 7:25-4.13.

T = Threatened conservation status as currently included on the nongame species list at N.J.A.C. 7:25-4.17 or as proposed to be included on the list of endangered species at N.J.A.C. 7:25-4.13 pursuant to the proposed definition and structural change.

S = Secure/stable conservation status on the nongame species list at N.J.A.C. 7:25-4.17.

SC = Special concern conservation status on the nongame species list at N.J.A.C. 7:25-4.17.

U = Unknown/undetermined conservation status on the nongame species list at N.J.A.C. 7:25-4.17.

<sup>\*</sup> Pursuant to the Department's policy for invertebrate species of only including species with a conservation status of "special concern" (SC) on the nongame species list at N.J.A.C. 7:25-4.17, these nine butterfly species are not currently listed (nl); however, their unpublished/internal conservation status determined by the previous butterfly Delphi status assessment was unknown/undetermined (U).

<sup>\*\*</sup> Breeding populations are new to list – list currently includes only non-breeding populations.

Additions to the Nongame Species List:

The amendments proposed to the nongame species list include the addition of 29 species. Of these species, only one species, the Bald Eagle – breeding population, is a species included on the existing list of endangered species at N.J.A.C. 7:25-4.13, whose conservation status has improved. This proposed amendment, discussed above, is included in Table 2 and Table 3 above, and is not included in either Table 4 or Table 5. The remaining 28 species proposed for addition to the list have not previously been included on either the list of endangered species or the nongame species list and are marked as "nl" for "not listed" on Tables 4 and 5.

## Fairy Shrimp and Crayfish:

In 2010, the Department completed an assessment of two groups of freshwater crustaceans: fairy shrimp and crayfish (<a href="https://dep.nj.gov/wp-content/uploads/njfw/crustacean\_status\_rprt.pdf">https://dep.nj.gov/wp-content/uploads/njfw/crustacean\_status\_rprt.pdf</a>). The result of the assessment indicated one species, the Eastern Fairy Shrimp, merited a conservation status of special concern (SC) based on its rarity and obligate relationship with vernal pool habitats. Despite protection through New Jersey's Freshwater Wetlands Regulations (N.J.A.C. 7:7A), these wetland habitats remain very vulnerable to modifications to hydrology, water chemistry, and micro-climate resulting from the surrounding land use. Consequently, Eastern Fairy Shrimp is proposed to be included on the nongame species list with a conservation status of special concern (SC).

#### Butterflies:

All of the nine species of butterflies that the Department proposes to add to the nongame species list are species that the Department previously categorized as undetermined-unknown

(U). As an invertebrate species categorized as undetermined-unknown (U), they are not included on the existing nongame species list. The proposed conservation status of special concern (SC) for butterflies is primarily the result of improved information on their distribution and status within the State. Many species are experiencing range-wide declines and, like the butterfly species proposed to be added to the list of endangered species, many of these species are associated with early successional habitats, are host and nectar plant specialists, and occur in specific habitat types. Consequently, these species are highly sensitive to the loss of early successional habitat, alteration of natural disturbance processes, and the effects of climate change and invasive species that adversely affect the availability of nectar and food plants.

#### Fish:

As noted above in the discussion of proposed amendments to the list of endangered species, the Department completed its first comprehensive assessment of the status of native freshwater fish in 2016 (<a href="https://dep.nj.gov/wp-content/uploads/njfw/fish\_status\_rprt.pdf">https://dep.nj.gov/wp-content/uploads/njfw/fish\_status\_rprt.pdf</a>). That evaluation resulted in the proposed addition of three species to the list of endangered species, as discussed above, and the addition of six species of freshwater fish to the nongame species list with a status of special concern (SC) (American Brook Lamprey, Blackbanded Sunfish, Comely Shiner, Mud Sunfish, Northern Hog Sucker, and Shield Darter). As described above, for invertebrate species groups and freshwater fish, the Department includes on the list of regulated nongame species only those species that it has determined warrant a conservation status of special concern (SC). The fish species proposed for inclusion on the list with a status of special concern (SC) are species that have very specific habitat requirements with respect to substrate, water chemistry, temperature, and/or quality and are consequently intolerant of habitat

degradation. These same factors also result in these species occurring in very limited, disjunct locations, and/or in low numbers, which contributes to their vulnerability. All of these fish, except the Northern Hog Sucker, are considered regional species of greatest conservation need (Terwilliger Consulting, Inc. and the Northeast Fish and Wildlife Diversity Technical Committee. 2023. Northeast Regional Conservation Synthesis for 2025 State Wildlife Action Plans. Northeast Association of Fish and Wildlife Agencies, Washington, D.C. <a href="https://northeastwildlifediversity.org/sites/default/files/2023-04/ne\_regional\_conservation\_synthesis\_for\_2025\_state\_wildlife\_action\_plans.pdf">https://northeastwildlifediversity.org/sites/default/files/2023-04/ne\_regional\_conservation\_synthesis\_for\_2025\_state\_wildlife\_action\_plans.pdf</a>). The

the Delaware and Hudson drainages and reaches the eastern edge of its range in New Jersey,

putting it at increased risk of population declines and extirpation from the State.

## Amphibians:

Two amphibian species, Green Treefrog and Atlantic Coast Leopard Frog, are proposed to be added to the nongame species list with a conservation status of undetermined-unknown (U). The Green Treefrog was first reported and confirmed in New Jersey in June 2011 (DiLeo, Karena. 2012. *Geographic distribution: Hyla cinerea*. Herpetological Review 43.1: 97). In the last 11 years, the species has been documented in Salem County and Gloucester County in southwestern New Jersey, with the likelihood of occurrences in adjacent counties being very high. Genetic analysis of Green Treefrogs from New Jersey and from nearby Delaware populations suggests the New Jersey populations are the result of natural range expansion and colonization from nearby populations in Delaware, and it is further less likely or unlikely that the New Jersey frogs are pet releases (Dolcemascolo, Paola. 2014. *Anthropogenic Disturbance of the* 

Herpetofauna in the Northeast US: Wildlife Disease and Habitat Modification. Theses,
Dissertations and Culminating Projects. 60. https://digitalcommons.montclair.edu/etd/60).
Additionally, a novel species of leopard frog, named the Atlantic Coast Leopard Frog, was confirmed to be present in New Jersey through genetic data in 2012 (Newman, Catherine E., Feinberg, Jeremy A.; Rissler, Leslie J.; Burger, Joanna; and Shaffer, H. Bradley. 2012. A new species of leopard frog (Anura: Ranidae) from the urban northeastern US. Molecular phylogenetics and evolution 63.2: 445-455.

https://www.nj.gov/dep/fgw/ensp/pdf/leopardfrog\_newman.pdf). Additional research on the distribution of the new species and description of the frog, including the formal proposing of the name, was reported by Feinberg et al. in 2014 (Feinberg, Jeremy A.; Newman, Catherine E.; Watkins-Colwell, Gregory J.; Schlesinger, Matthew D.; Zarate, Brian; Curry, Brian R.; Shaffer, H. Bradley; and Burger, Joanna. 2014. *Cryptic diversity in Metropolis: confirmation of a new leopard frog species (Anura: Ranidae) from New York City and surrounding Atlantic Coast regions*. PloS ONE 9(10): e108213. Doi:10.1371/journal.pone.0108213). While records for both species are sufficient to consider them indigenous and include them on the nongame species list, the recency of both discoveries means that additional data are needed to determine their conservation status. Consequently, the Department is proposing a status of undetermined-unknown (U) for both the Green Treefrog and Atlantic Coast Leopard Frog.

#### Reptiles:

Legislation enacted in 2016 established the Northern Diamond-backed Terrapin as a nongame species (P.L. 2016, c. 17, s. 1; N.J.S.A. 23:2A-4.), but a regulatory amendment adding the species to the nongame species list was not proposed until the reptile and amphibian status

assessment could be completed. Prior to the legislation, commercial harvest of terrapins was allowed pursuant to New Jersey marine fish rules (N.J.A.C. 7:25-21), so the species did not meet the statutory definition of a nongame species. Despite the closure to legal harvest resulting from this 2016 legislation, the species remains a target of illegal take and is also threatened by by-catch in commercial and recreational crab traps, road mortality (particularly of nesting females and hatchlings), and loss of suitable nesting habitat (that is, sand dunes and other open sandy areas near coastal waters) to coastal development and beach erosion. Consequently, the Department is proposing to add the species with a conservation status of special concern (SC). Due to the 2016 legislation and the proposed addition of terrapins to the nongame species list, the Department is also proposing to repeal the Terrapin rules at N.J.A.C. 7:25-21.

#### Birds (Breeding):

Biologists and the birding community have recently documented nesting by two species of birds, Mississippi Kite and Royal Tern, that previously historically occurred only as wintering or migratory birds within the State. The Department proposes to add the breeding populations of these species to the nongame species list with a status of secure-stable (S). Mississippi Kites were documented nesting near Waretown (Ocean County) in 2015 (New Jersey Bird Records Committee. 2016. Mississippi Kites nesting in New Jersey. Njbrc.com/wp-content/uploads/2016/07/Mississippi-Kites-nesting-in-New-Jersey.pdf). This is the first time that the species has been documented nesting in the State. Mississippi Kites are still a rare breeder in the State; however, their populations in the south-central states are stable or expanding. The birds that have begun nesting in New Jersey likely originated in these areas and, with suitable habitat in many areas of the State, it is likely that New Jersey will continue to see Mississippi Kites

nesting and possibly expanding in the State. Consequently, the Department is proposing a secure-stable (S) conservation status for this species.

Though previously observed occasionally during the nesting season, Royal Terns were first documented nesting in the vicinity of Hereford Inlet (Cape May County) in small numbers sporadically beginning in 2007 (DEP – Division of Fish and Wildlife unpublished data). More recently, in 2021 and 2022, a sizable colony of hundreds of nesting adults occupied a sand island that had formed in the previous five to 10 years immediately southeast of Little Egg Inlet in Atlantic County (DEP and Conserve Wildlife Foundation of New Jersey 2022. Horseshoe Island 2022 Report - Prepared for the New Jersey Tidelands Resource Council. https://dep.nj.gov/wpcontent/uploads/njfw/horseshoe-island-report-2022.pdf). Royal Tern populations in the mid-Atlantic are highly dynamic (Watts, B. D.; Paxton, B. J.; Boettcher, R.; and Wilke, A. L. 2019. Status and distribution of colonial waterbirds in coastal Virginia: 2018 breeding season. Center for Conservation Biology Technical Report Series, CCBTR-19-06. College of William and Mary and Virginia Commonwealth University, Williamsburg, VA. 28 pp. https://scholarworks.wm.edu/cgi/viewcontent.cgi?article=1237&context=ccb\_reports). However, their numbers are currently increasing in New Jersey, and their breeding range appears to be expanding northward.

#### *Birds (Non-Breeding)*:

The Department is proposing to add six species of birds that migrate through and/or winter in New Jersey (non-breeding) to the nongame species list. Two coastal waterbirds, Black Tern and Sandwich Tern, and one pelagic waterbird, Audubon's Shearwater, not currently included on the list, are proposed to be added based on records and expert opinion indicating that

the birds occur with sufficient regularity (nearly annually) within the State and/or its waters to be considered indigenous. While each of these species occurs in the State with sufficient frequency to be considered indigenous, their occurrence in this State is peripheral and New Jersey does not play a significant role in regional and hemispheric population status. The Department is proposing a status of secure-stable (S) for these three bird species based on the likelihood of their regular continued occurrence in the State.

Two species of songbirds, Bicknell's Thrush and Nelson's Sparrow, have not previously been included on this list due to insufficient documentation of their occurrence in the State. The Department proposes adding these species to the nongame species list based on now available information. For example, the online database eBird.org, curated by the Cornell Lab of Ornithology, provides information demonstrating that these species regularly use areas in New Jersey for migratory stopovers (Bicknell's Thrush) or wintering (Nelson's Sparrow) (Fink, D.; Auer, T.; Johnston, A.; Strimas-Mackey, M.; Ligocki, S.; Robinson, O.; Hochachka, W.; Jaromczyk, L.; Rodewald, A.; Wood, C.; Davies, I.; and Spencer, A. 2022. eBird Status and Trends. Data Version: 2021; Released: 2022. Cornell Lab of Ornithology, Ithaca, New York. https://doi.org/10.2173/ebirdst.2021). A status of secure-stable (S) is proposed for Nelson's Sparrow, whose populations experienced a 42 percent increase between 1970 and 2017 (see supplementary material aaw1313 data s1.xlsx in Rosenberg, Kenneth V.; Doktor, Adriaan M.; Blancher, Peter J.; Sauer, John R.; Smith, Adam C.; Smith, Paul A.; Stanton, Jessica C.; Panjavi, Arvind; Helft, Laura; and Marra, Peter P. 2019. Decline of the North American avifauna. Science. 366: 120-124. https://www.science.org/doi/10.1126/science.aaw1313). A status of special concern (SC) is proposed for Bicknell's Thrush for the nonbreeding population. Bicknell's Thrush is one of eastern North America's rarest songbirds and it is listed as

endangered or as a species of concern throughout its nesting range, including in all four northeast states and Canada where it nests. Its imperiled status in its breeding range is the basis for listing its nonbreeding population as special concern (SC) in the proposed amended rules.

Finally, as noted above in the discussion of additions to the list of endangered species, the Department previously considered King Rail a game bird. The Department is proposing to classify the King Rail as a nongame species as the hunting season has been closed continuously since 2002 and the population status suggests that opening a season is not likely in the foreseeable future. While the bird's breeding population is proposed for endangered status as described above in the discussion of amendments to the list of endangered species, the Department proposes to add the non-breeding population of King Rail to the nongame species list with a status of undetermined-unknown (U), as there are significant gaps in the Department's understanding of the migratory and overwinter ecology of this species making this the most appropriate status for the non-breeding population at this time.

## Land Mammals:

One species of mammal is proposed to be added to the nongame species list. The Department is proposing to add Eastern Pygmy Shrew with a status of undetermined-unknown (U). This species, previously not documented in New Jersey, was confirmed in a trapping study conducted by the Department in 1993, when three specimens were captured near the Delaware Water Gap National Recreation Area (Sciascia, James C. and Peheck, Ellen. DEP Endangered and Nongame Species Program. 1994. Small Mammal and Amphibian Populations and their Microhabitat Preferences within Selected Hemlock Ecosystems in the Delaware Water Gap National Recreation Area. One Year Progress Report (Unpublished). 25pp). None of the

previous amendments to the list since 1993 included a comprehensive status assessment of mammals, as Department was waiting for assessments to be completed in 2009 for marine mammals and 2012 for land mammals.

Removals from the Nongame Species List:

A total of 61 species are proposed to be removed from the nongame species list. Of these proposed removals, 31 species with a conservation status of threatened (T) are proposed to be moved to the list of endangered species based on the proposed restructuring discussed above and as shown in Table 1 above. They are not included in Table 4 or Table 5. Twenty species are proposed to be removed from the nongame species list to be placed on the list of endangered species because of increased conservation concern. These proposed changes were summarized in Table 2, detailed in Table 3, and included in the discussion of the proposed amendments to the list of endangered species above. The 10 remaining species proposed to be removed from the existing nongame species list, and that are not on the existing list of endangered species and not proposed to be added to that list, include one amphibian, one bird (non-breeding), and eight marine mammals.

## <u> Amphibians</u>:

Genetics research was conducted on trilling chorus frogs, including New Jersey's presumed two species, the Upland Chorus Frog (*Pseudacris ferarium*) and the New Jersey Chorus Frog (*Pseudacris kalmi*) in the mid 2000s (Lemmon, Emily. M.; Lemmon, Alan R.; Collins, Joseph T.; Lee-Yaw, Julie A.; and Cannatella, David C. 2007. *Phylogeny-based delimitation of species boundaries and contact zones in the trilling chorus frogs (<i>Pseudacris*).

Molecular Phylogenetics and Evolution 44: 1068–1082; and DEP – Division of Fish and Wildlife unpublished data). This research revealed that the State hosted only New Jersey Chorus Frogs and had likely historically been home to only that single species. The Department is consequently proposing to remove the Upland Chorus Frog, currently listed with undetermined-unknown (U) status, from the nongame species list based on these genetic studies.

#### Birds:

Wilson's Phalarope, a passage migrant shorebird in New Jersey, is proposed for removal based on review of records indicating that both the species' historic and current occurrence in New Jersey are too infrequent and geographically scattered for the species to be considered an indigenous species.

#### Marine Mammals:

The remaining eight species that the Department proposes to remove are all oceanic, pelagic whale, and dolphin species that typically inhabit deep open ocean waters well away from the coast. Expert review of their status in New Jersey concluded that, except for dead or dying individuals, the species are consistently confined to Federal waters, three to 200 nautical miles offshore, and do not occur, and have not historically occurred, within New Jersey waters zero to three nautical miles offshore. Consequently, the species are not considered indigenous to New Jersey. For these reasons, the eight species proposed for removal are listed in the existing rules as undetermined-unknown status (U), that is, none are currently listed with threatened (T) or special concern (SC) status. The Department will continue to list all marine mammal species identified as endangered or threatened pursuant to the Federal ESA that occur in New Jersey waters on the

list of endangered species at N.J.A.C. 7:25-4.13, even when such occurrence is rare. All marine mammals that occur inside and outside of State waters are protected by the Marine Mammal Protection Act (MMPA), 16 U.S.C. §§ 1361 et seq., and regulations promulgated thereunder.

Conservation Status Updates within the List:

Of the species on, and proposed to remain on, the existing nongame species list, the Department is proposing conservation status changes for 74 species. Seventeen species with a proposed conservation status change from threatened (T) to special concern (SC), threatened (T) to secure-stable (S), or special concern (SC) to secure-stable (S) reflect a generally reduced conservation concern (improved conservation status) and are characterized as such in Tables 4 and 5. The Department proposes to characterize 18 species as having an increased conservation concern (worsened conservation status), changing secure-stable (S) to special concern (SC). The proposed conservation status changes for the remaining 39 species (secure-stable -S to undetermined-unknown -U, undetermined-unknown -U to secure-stable -S, and undeterminedunknown -U to special concern -SC) cannot be generalized as either increased or reduced conservation concern. The proposed status changes for these 39 species are generally a result of an increase in available information and improved understanding of species and habitat trends and/or species ecology and not necessarily the result of a known increase/decrease in threat or risk or known population trends. This is also due, in part, to the definition of "special concern" encompassing species for which the status is poorly understood, but that are inherently vulnerable. These changes are characterized as "neutral" in Tables 4 and 5.

Brief explanations for those 17 species with reduced conservation concern, that is, from threatened (T) to secure-stable (S), threatened (T) to special concern (SC), or special concern

(SC) to secure-stable (S), are provided below. Similarly, brief explanations are also provided for the 18 species with increased conservation concern, that is, whose conservation status has worsened from secure-stable (S) to special concern (SC) status. Due to the regulatory implications of special concern (SC) status, the discussion of species with increased conservation concern provides an explanation for all species proposed for special concern (SC) status including those proposed to change from undetermined-unknown (U) status to special concern (SC), which are included as a neutral conservation status change in Tables 4 and 5 above. Additional information regarding the basis for the status changes is found within the Delphi status assessment reports referenced above and available on the Department's website at: <a href="https://nj.gov/dep/fgw/ensp/species">https://nj.gov/dep/fgw/ensp/species</a> assessment.htm.

As described above, for invertebrate species, the Department includes only species with a conservation status of special concern (SC) on the nongame species list. Consequently, any changes to a nongame invertebrate species' status of special concern (SC) would have resulted in an addition or removal from the nongame species list and is reflected within this Summary in the respective discussions above. Similarly, for freshwater fish, the proposed amendments reflect the first assessment of conservation status for fish considered nongame, so all background regarding conservation status is covered in the discussion of additions to the nongame species list.

Nongame Species with Reduced Conservation Concern:

#### *Amphibians*:

Among amphibians, a single species, the Fowler's Toad, is proposed to change from special concern (SC) to secure-stable (S). This improved status reflects an increase in the number

of observations, including in areas of the State that were not previously known to host populations of Fowler's Toad. Together, these observations are consistent with an expanding and increasing population.

## Birds (Breeding):

The Department proposes improved conservation status designations for the breeding population of seven species including Osprey, Cooper's Hawk, Cattle Egret, Hooded Warbler, Northern Parula, Worm-eating Warbler, and Blue-headed Vireo. The Department has documented a continuous population increase of Osprey, a species recovering from the effects of persistent organochlorine pesticides. Annual nest surveys (ground and aerial) currently estimate the Osprey nesting population at over 600 pairs, with nest success consistently above the minimum necessary for a sustainable population. With this sustained population increase, which now includes all areas of the State historically occupied by Osprey, the Department is proposing to change the status for breeding population from threatened (T) to secure-stable (S).

Populations of another species likely benefiting from the banning of DDT and other organochlorine pesticides in the 1970s is the Cooper's Hawk, whose status for breeding populations changed from threatened (T) to special concern (SC) in the last update to the nongame species list (43 N.J.R. 87(a)) and the population has continued to increase in the State. The Breeding Bird Survey shows a positive trend in New Jersey population from 1993 through 2019, the last year data are currently available (Sauer, J. R.; Niven, D. K.; Hines, J.E.; Ziolkowski, Jr., D.J.; Pardieck, K.L.; Fallon, J.E.; and Link, W.A. 2019. *The North American Breeding Bird Survey, Results and Analysis 1966 – 2019*. Version 2.07.2019. USGS Patuxent Wildlife Research Center, Laurel, MD. https://www.usgs.gov/tools/north-american-breeding-

<u>bird-survey-results-and-analysis</u>). Consequently, the Department is proposing to change the Cooper's Hawk breeding status from special concern (SC) to secure-stable (S).

The Department is also proposing an improved conservation status for breeding populations of Cattle Egret, which the existing list shows as having a threatened (T) status. Cattle Egrets are closely associated with active livestock pastures and rangeland (see Telfair II, R. C. 2020. Cattle Egret (Bubulcus ibis). Version 1.0. In Birds of the World (S. M. Billerman, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.categr.01). A decline in Cattle Egret numbers in New Jersey and surrounding states from the late 1980s through the mid-2000s corresponds with the decline in dairy farming in these areas and the resultant conversion of pastures and rangelands to croplands. The species remains uncommon in the State; however, its breeding populations became, and remain, widespread in North America (occupying all but four states) after expanding its range into the United States from Asia and Africa beginning in the late nineteenth century. Given the species mobility and historically documented capacity for rapid dispersal and colonization and the consequent secure status of the species in North America, biologists have concluded that there is minimal threat of permanent extirpation from the State. The most recent Delphi status assessment, therefore, determined that a conservation status of special concern (SC) is the appropriate designation for the State's breeding population of this species.

Three warbler species, Hooded Warbler, Northern Parula, and Worm-eating Warbler, and one vireo species, the Blue-headed Vireo (all currently listed as special concern (SC) and proposed for secure-stable (S) status), that nest in forested habitats have experienced population increases in North America between 1970 and 2017, and the North American Breeding Bird

Survey has generally shown that these continental increases include New Jersey (see Rosenberg et al. 2019; Sauer et al. 2019).

## *Birds (Non-Breeding)*:

The Department proposes improved conservation status designations for the non-breeding populations of nine birds, including Bald Eagle, Cattle Egret, Red-headed Woodpecker, Common Nighthawk, Gray-cheeked Thrush, Northern Goshawk, Peregrine Falcon, Sharpshinned Hawk, and Whimbrel.

Among the most notable proposed amendments to the nongame species list is the change in status for the non-breeding population of Bald Eagle from threatened (T) to secure-stable (S). As Bald Eagle populations have continued to increase throughout their range (U.S. Fish and Wildlife Service. 2020. Final Report: Bald Eagle Population Size: 2020 Update. U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Washington, D.C. https://www.fws.gov/media/us-fish-and-wildlife-service-final-report-bald-eagle-population-size-2020-update), the number of birds migrating through and wintering in New Jersey has also increased (Cape May Hawk Watch fall migration data accessed on https://trektellen.org/site/info/1744; National Audubon's Christmas Bird Count data on https://njaudubon.org/watches/cape-may-hawkwatch/). The remarkable recovery of Bald Eagle populations is due primarily to the prohibition of DDT and the chemical's subsequent decline in the environment. The State's eagle population also increased due to habitat protection, particularly around nest sites, and the improvement of fish and waterfowl populations. Bald Eagle restoration efforts in New Jersey and surrounding states contributed to population increases in New Jersey and the surrounding region.

For similar reasons to those described above for Cattle Egret breeding population, that is, the species' secure status in North America and its capacity for rapid dispersal and colonization, the Department proposes to change the status of non-breeding Cattle Egret from special concern (SC) to secure-stable (S).

Milder winters have allowed for more suitable conditions for Red-headed Woodpeckers to remain in New Jersey for the winter, particularly in southern New Jersey. The lack of persistent snow cover makes it easier for them to find food (such as acorns and residual crops). The increase in dead standing trees that has followed from infestations of Southern Pine Beetle and Emerald Ash Borer has also increased the potential number of winter roosting sites for Redheaded Woodpeckers, which was another limiting factor for the non-breeding population.

Together, these factors have resulted in increased numbers of Red-headed Woodpeckers overwintering in New Jersey and the change in status from threatened (T) to special concern (SC). Habitat needs for breeding Red-headed Woodpeckers are narrower than for migrating and wintering birds, and the continued scarcity of open-canopy savanna-like forest that comprises nesting habitat continues to limit the New Jersey breeding population of Red-headed Woodpeckers, which remains listed as threatened (T).

The non-breeding populations of five additional species of birds, Common Nighthawk, Gray-cheeked Thrush, Northern Goshawk, Peregrine Falcon, and Sharp-shinned Hawk, are proposed to change from special concern (SC) to secure-stable (S) based on evidence that wintering and migratory populations in the State, or in the areas from which they originate, are stable. While breeding populations of the Common Nighthawk are declining in New Jersey, the non-breeding populations in New Jersey are individuals that breed in the Northeast and eastern Canada, whose populations appear stable or increasing (see <a href="https://science.ebird.org/">https://science.ebird.org/</a>).

Population declines of the Gray-cheeked Thrush have leveled off in eastern Canada where migrants in New Jersey breed (see <a href="https://pif.birdconservancy.org/avian-conservation-assessment-database-scores/">https://pif.birdconservancy.org/avian-conservation-assessment-database-scores/</a>). Though relatively low numbers of the Northern Goshawk, a raptor that nests primarily north of New Jersey, pass through the State during migration, the numbers recorded at State hawk watches (for example, Cape May Hawk watch) during fall migration have been stable. Increases in breeding populations of Peregrine Falcons in eastern Canada and regions north of New Jersey (Sauer et al. 2019) have resulted in increased numbers migrating through the State. Similarly, stable number of migrants have been recorded for Sharp-shinned Hawks on area hawk watches (for example, Cape May Hawk Watch – data accessed on Trektellen.org).

For the Whimbrel, the proposal to change the status of non-breeding populations from special concern (S) to secure-stable (S) is based on the minor role that New Jersey's stopover plays for this Arctic-nesting shorebird and the fact that while hemispheric populations of Whimbrel are slowly declining, at this time the species remains very numerous (BirdLife International. 2023. *Species factsheet: Numenius phaeopus*.

http://datazone.birdlife.org/species/factsheet/whimbrel-numenius-phaeopus).

Nongame Species with Increased Conservation Concern and Nongame Species Changing to Special Concern (SC) from Undetermined-unknown (U):

Conservation status changes from secure-stable (S) to special concern (SC) are reflected as an increased conservation concern on Tables 4 and 5. Conservation status changes from undetermined-unknown (U) to special concern (SC) are reflected as "neutral" conservation status changes based primarily on an increase in available information, rather than an increase or

reduction in conservation concern. Both of these changes are discussed based on the regulatory implications of special concern (SC) status.

#### Amphibians:

The Department proposes special concern status for three species of amphibians, the Eastern Spadefoot (currently undetermined-unknown -U), Eastern Cricket Frog (currently secure-stable -S) and the Spotted Salamander (currently secure-stable -S). The Cricket Frog in New Jersey is likely at the northern limit of its range, which extends into parts of southern New York where its status is considered endangered by the New York State Department of Environmental Conservation. While portions of New Jersey still support this species across broad areas and habitat types, experts working in the State have reported disappearance of the species from previously occupied areas over the past several decades, presumably from loss and change of critical habitats. The Eastern Spadefoot and the Spotted Salamander are joining the ranks of other vernal pool breeding amphibians that are considered special concern (SC), threatened (T), or endangered (E). While New Jersey's freshwater wetlands rules (N.J.A.C. 7:7A) provide a degree of protection to these critical isolated wetlands habitats, the surrounding uplands on which these species also depend receive much less protection. Habitat alterations in the areas surrounding vernal pools have continued to result in adverse changes (for example, chemical and hydrological changes) to the pools themselves and decreased habitat suitability of the surrounding areas on which these species depend.

#### Reptiles:

Four species of snakes, the Eastern Smooth Earthsnake (currently undeterminedunknown -U), Smooth Greensnake (currently undetermined-unknown -U), Eastern Hog-nosed Snake (currently secure-stable -S) and the Rough Greensnake (currently undetermined-unknown -U), and one lizard species, Little Brown Skink (currently undetermined-unknown -U) are proposed for special concern (SC) status. As most snakes are highly cryptic and secretive, and several are fossorial (spend much of their time underground), data on population trends and habitat use are scant. For species that appear to be rare and for those that have limited disjunct distribution or specialized habitats, this lack of understanding makes management challenging, particularly the design and implementation of conservation measures to mitigate potential harm from construction and other activities. The above four snake species determined to be special concern (SC) meet one or more of these characteristics, that is, have limited distribution (for example, Smooth Greensnake), are habitat specialists (for example, Smooth Greensnake, Rough Greensnake), or are rarely observed. In addition, there is some concern that fossorial species (for example, Eastern Smooth Earthsnake) may be more susceptible to the effects of emergent exotic diseases, such as snake fungal disease. For the Eastern Hog-nosed Snake, the experts in the Delphi species status review also noted concern with the decline in observations of this species that may be indicative of a population decline. The Little Brown Skink reaches the northeast extent of its range in New Jersey with populations limited to the southern New Jersey Pinelands. The skink's small home ranges and disjunct populations increases population vulnerability to habitat fragmentation and to resulting population isolation and consequent risk of local declines and extirpation.

### Birds (Breeding):

The breeding populations of Bank Swallow, Blue-winged Warbler, Chimney Swift, Field Sparrow, Prairie Warbler, Purple Martin, and Rose-breasted Grosbeak are all proposed to be changed from secure-stable (S) to special concern (SC). Populations of these New Jersey nesting species have continued to experience marked declines (Sauer et al. 2019), as well as declines of between 25 percent to more than 50 percent across North America between 1970 and 2017 (see Rosenberg et al. 2019).

The Green Heron, proposed to be changed from secure-stable (S) to special concern (SC), has experienced a decline of over 50 percent between 1970 to 2017 across North America (see Rosenberg et al. 2019.), including New Jersey (Sauer et al. 2019.).

## Birds (Non-Breeding):

Non-breeding populations of six species of migratory birds, the Black-billed Cuckoo, Canada Warbler, Olive-sided Flycatcher, Ruddy Turnstone, Rusty Blackbird, and Saltmarsh Sparrow, are proposed to be changed from secure-stable (S) to special concern (SC). Populations of the Black-billed Cuckoo, Canada Warbler, Olive-sided Flycatcher, and Rusty Blackbird have continued to experience marked declines (declines of more than 60 percent of the North American populations) between 1970 and 2017 (see Rosenberg et al. 2019). Similarly, the Department's aerial surveys of shorebirds on Delaware Bay during spring migration indicate a greater than 60 percent decline in Ruddy Turnstone over the past decade (DEP unpublished data). As described above in the section explaining changes to the list of endangered species, the Saltmarsh Sparrow breeding population is proposed for threatened (T) status. The nonbreeding population is affected by the same factors adversely impacting the breeding population; however,

with more flexible habitat requirements, the nonbreeding population is at somewhat less risk than the breeding population.

The breeding population of a single bird species, the Eastern Whip-poor-will, currently listed with undetermined-unknown (U) status is proposed to be changed to special concern (SC). Across North America, Whip-poor-wills have declined at a rate of 2.76 percent annually throughout their range since the 1960s (Sauer et al. 2019). Note that breeding populations of this species are listed in the existing rules as special concern (SC) and no conservation status change is proposed for the breeding population.

#### Land Mammals:

Among land mammals, the existing rules list four bat species and one rodent as undetermined-unknown (U); these species are proposed for special concern (SC) status. Despite being less vulnerable to the epizootic white-nose syndrome than other northeastern cavehibernating bat species, Big Brown Bats in New Jersey face habitat loss, frequent human conflicts due to their colonial nature and their adaptive use of human-occupied structures for roosting, and potential emerging health effects from ectoparasites. The migratory tree bats, Eastern Red Bat, Northern Hoary Bat, and Silver-haired Bat face an increasing and cumulative threat from land-based wind energy operations throughout their range (Frick, W.F.; Baerwald, E.F.; Pollock, J.F.; Barclay, R.M.R.; Szymanski, J.A.; Weller, T.J.; Russell, A.L.; Loeb, S.C.; Medellin, R.A.; and McGuire, L.P. 2017. Fatalities at wind turbines may threaten population viability of a migratory bat. Biological Conservation. 209: 172-177.

https://www.fs.usda.gov/research/treesearch/53775; and Hayes, Mark A. 2013. Bats Killed in

Large Numbers at United States Wind Energy Facilities. BioScience 63(12): 975-979.

https://academic.oup.com/bioscience/article/63/12/975/2365527). D.I. Solick and C.M. Newman, in 2021, determined that much less is known regarding the impacts of offshore wind power operations, which are only just beginning to emerge along North America's Atlantic coast.

Research is ongoing and expanding regarding bats' migratory pathways and behavior relative to wind energy operations to improve the understanding of risk exposure and impacts (see Solnick, Donald I. and Newman, Christian M. 2021. *Oceanic records of North American bats and implications for offshore wind energy development in the United States*. Ecology and Evolution 11(21): 14433-14447. <a href="https://onlinelibrary.wiley.com/doi/full/10.1002/ecc3.8175">https://onlinelibrary.wiley.com/doi/full/10.1002/ecc3.8175</a>). Such studies are already being used to guide siting and operational strategies to minimize and mitigate adverse impacts to bats (see Allison, Taber D. American Wind Wildlife Institute. 2018. *Bats and Wind Energy: Impacts, Mitigation, and Tradeoffs*. Washington, DC.

https://www.efsec.wa.gov/sites/default/files/210011/admitted/EXH-3009\_R.pdf; Hayes, Mark A., Hooton, Lauren A.; Gilland, Karen L.; Grandgent, Chuck; Smith, Robin L.; Lindsay, Stephen R.; Collins, Jason D.; Schumacher, Susan M.; Rabie, Paul A.; Gruver, Jeffrey C.; and Goodrich-Mahoney, John. 2019. A smart curtailment approach for reducing bat fatalities and curtailment time at wind energy facilities. Ecological Applications, 29(4):e01881. 10.1002/eap.1881, https://esajournals.onlinelibrary.wiley.com/doi/abs/10.1002/eap.1881; and Arnett, Edward B., Huso, Manuela M.P.; Schirmacher, Michael R.; and Hayes, John P. 2011. Altering turbine speed reduces bat mortality at wind energy facilities. Frontiers in Ecology and the Environment, 9:209-214, doi:10.1890/100103, https://esajournals.onlinelibrary.wiley.com/doi/abs/10.1890/100103).

The Meadow Jumping Mouse, proposed to change from undetermined-unknown (U) to special concern (SC), is a habitat specialist and typically exists at low numbers. As such, it is

particularly vulnerable to environmental change and has experienced declining habitat availability.

#### Marine Mammals:

In contrast to the marine mammal species proposed for removal from the nongame list described above, the species remaining on the list of regulated nongame species historically regularly and predictably occur in New Jersey's coastal waters as part of their natural range. The conservation status of the Bottlenose Dolphin and the Harbor Porpoise are both proposed to be changed from undetermined-unknown (U) to special concern (SC). The special concern (SC) status is primarily a reflection of the susceptibility of populations of these species to bycatch, particularly in gillnet fisheries (National Marine Fisheries Service. 2021. *Common Bottlenose Dolphin (Tursiops truncatus truncatus): Western North Atlantic Northern Migratory Coastal Stock*. https://media.fisheries.noaa.gov/2021-

<u>07/f2020\_AtlGmexSARs\_NmigBottlenoseDolphin.pdf?null;</u> and National Marine Fisheries Service. 2022. *Harbor Porpoise (Phocoena phocoena phocoena):* 

Gulf of Maine/Bay of Fundy Stock. <a href="https://media.fisheries.noaa.gov/2022-08/Harb%20Porp-gmaine-Fundy%20Stock\_SAR%202021.pdf">https://media.fisheries.noaa.gov/2022-08/Harb%20Porp-gmaine-Fundy%20Stock\_SAR%202021.pdf</a>). Further, the Northern Migratory Coastal Stock of Bottlenose Dolphin is considered by the National Marine Fisheries Service to be "depleted."

#### **Species Name Changes**

Proposed amendments to the names of species that the Department proposes to move to or from the list of endangered species at N.J.A.C. 7:25-4.13 or the list of regulated nongame species at N.J.A.C. 7:25-4.17, or whose conservation status is proposed to change, are shown in

Tables 1, 3, and 5 above. Among the species on the existing list of endangered species and the existing list of regulated nongame species for which no status updates are proposed and that are not being moved between the two lists, are an additional 93 species for which the Department is updating and/or correcting common and/or scientific names. Table 6 below provides nomenclature changes proposed for the species not included in Tables 1, 3, and 5 above.

Table 6. Proposed amendments to species common and scientific names for species remaining on the list of endangered species at N.J.A.C. 7:25-4.13 or the nongame species list at N.J.A.C. 7:25-4.17 that have not been addressed in Tables 1, 3, or 5 above. Proposed amendments to species common and/or scientific names are shown with deleted old/incorrect name shown in brackets, and updated/corrected name shown in boldface. Species are listed within species groups alphabetically by their common name as used in the existing rules. Proposed amendments to species names with conservation status of E are made in the list of endangered species at N.J.A.C. 7:25-4.13. Proposed amendments to species names with conservation status of U, S, or SC are made in the nongame species list at N.J.A.C. 7:25-4.17.

Species	Scientific name	Conservation Status
Insects:		
Arrowhead Spiketail	Cordulegaster [oblique]obliqua	SC
Eastern Arogos Skipper	Artrytone a. [arogos ]arogos	E
Bronze Copper	[Lycaena] <b>Tharsalea</b> hyllus	E
Cobra Clubtail	[Gomphus] Gomphurus vastus	SC
Coppery Emerald	Somatochlora [Georgiana] <b>georgiana</b>	SC
Green-faced Clubtail	[Gomphus] <b>Hylogomphus</b> viridifrons	SC
[Harris'] Harris's Checkerspot	Chlosyne harrisii	SC
Midland Clubtail	[Gomphus] <b>Gomphurus</b> fraternus	SC
Mitchell's Satyr	Neonympha [mitchellii] <b>m.</b> mitchellii	E
[Northeastern] Eastern Beach Tiger Beetle	[Cicindela dorsalis] Habroscelimorpha d. dorsalis	E
Rapids Clubtail	[Gomphus] <b>Phanogomphus</b> quadricolor	SC
Sable Clubtail	[Gomphus] <b>Stenogomphurus</b> rogersi	SC
Septima's Clubtail	[Gomphus] <b>Gomphurus</b> septima	SC
[Ski-tailed] Ski-tipped Emerald	Somatochlora [elongate] elongata	SC
Spatterdock Darner	Rhionaeschna [mutate] mutata	SC
Amphibians:		
Allegheny Mountain Dusky Salamander	Desmognathus ochrophaeus	U
Barking Treefrog	[Hyla gratiosa] Dryophytes gratiosus	U
[Eastern] American Toad	Anaxyrus americanus [americanus]	
Eastern Tiger Salamander	Ambystoma [tigrinum ]t. tigrinum	E
[Northern] Gray Treefrog	[Hyla] <b>Dryophytes</b> versicolor	S
Eastern Red-backed Salamander	Plethodon cinereus	S
[Red-spotted] Eastern Newt	Notophthalmus [v.]viridescens	S

Species	Scientific name	Conservation Status
[Northern] Spring Peeper	Pseudacris [c.]crucifer	S
Northern Slimy Salamander	Plethodon glutinosus	S
Southern Leopard Frog	Lithobates sphenocephalus [utricularia]	S
Wood Frog	Lithobates [sylvatica] sylvaticus	S
Reptiles:		
[Atlantic]Hawksbill Sea Turtle	Eretmochelys imbricata	E
[Atlantic] Kemp's Ridley Sea Turtle	Lepidochelys kempii	E
[Atlantic] Leatherback Sea Turtle	Dermochelys [coriacea] c. coriacea	E
[Atlantic] Loggerhead Sea Turtle	Caretta caretta	E
Bog Turtle	Glyptemys [muhlenbergi] <b>muhlenbergii</b>	E
[Common] Northern Map Turtle	Graptemys geographica	U
[Common] Eastern Musk Turtle	Sternotherus odoratus	
[Corn Snake] Red Cornsnake	[Elaphe guttata] Pantherophis guttatus	E
[Eastern] Woodland Box Turtle	Terrapene c. carolina	SC
Eastern [Garter Snake ]Gartersnake	Thamnophis s. sirtalis	S
Eastern [King Snake] Kingsnake	Lampropeltis g. getula	SC
Eastern [Milk Snake] Milksnake [Eastern]Common [Ribbon Snake]	Lampropeltis t. triangulum	S
Ribbonsnake	Thamnophis s. [salauritus] saurita	S
Common Five-lined Skink	Plestiodon fasciatus	S
[Northern Brown Snake] Dekay's Brownsnake	Storeria d. dekayi	S
[Northern] Eastern Fence Lizard	Sceloporus undulatus hyacinthinus	S
Northern [Ringneck] Ring-necked Snake	Diadophis punctatus edwardsii	S
Northern [Water Snake] Watersnake	Nerodia s. sipedon	S
[Northern] Red-bellied Snake	Storeria occipitomaculata	S
Southern [Ringneck] Ring-necked Snake	Diadophis p. punctatus	S
Timber Rattlesnake	Crotalus [horridus] horridus	E

		Conservation Status	
			Non-
Birds:		<b>Breeding</b>	breeding
American Oystercatcher	Haematopus [palliates] palliatus	SC	SC
American Tree Sparrow	[Spizella] <b>Spizelloides</b> arborea		S
Bay-breasted Warbler	[Dendroica] <b>Setophaga</b> castanea		S
Blackburnian Warbler	[Dendroica] <b>Setophaga</b> fusca	SC	S
Blackpoll Warbler	[Dendroica] <b>Setophaga</b> striata		S
Black-throated Blue Warbler	[Dendroica] Setophaga caerulescens	SC	S
Black-throated Green Warbler	[Dendroica] Setophaga virens	SC	S
Buff-breasted Sandpiper	[Tryngites] Calidris subruficollis		S
Cape May Warbler	[Dendroica tigrine] Setophaga tigrina		SC
Cerulean Warbler	[Dendroica] <b>Setophaga</b> cerulea	SC	SC
Chestnut-sided Warbler	[Dendroica] Setophaga pensylvanica	S	S
Chuck-will's-widow	[Caprimulgus] Antrostomus carolinensis	S	S

Common Redpoll	[Acanthus] <b>Acanthis</b> flammea		U
Double-crested Cormorant	[Phalacrocorax auritus] Nannopterum auritum		S
Downy Woodpecker	[Picoides] <b>Dryobates</b> pubescens		S
Eastern [Wood Pewee] Wood-pewee	Contopus virens		
[Greater] Great Shearwater	[Puffinus] <b>Ardenna</b> gravis		S
Hairy Woodpecker	[Picoides] <b>Dryobates</b> villosus	S	S
Henslow's Sparrow	[Ammodramus] Centronyx henslowii	Е	E
House Finch	[Carpodacus] Haemorhous mexicanus	S	S
Killdeer	Charadrius [vociferous] vociferus		
Leach's Storm-petrel	[Oceanodroma leucorhoa] Hydrobates leucorhous		U
Magnolia Warbler	[Dendroica] <b>Setophaga</b> magnolia	S	S
Mourning Warbler	[Oporornis] <b>Geothlypis</b> philadelphia		S
Nashville Warbler	[Oreothlypis] <b>Leiothlypis</b> ruficapilla	SC	S
Northern Harrier	Circus [cyaneus] hudsonius	E	SC
Northern Shrike	Lanius [excubitor] borealis		S
Orange-crowned Warbler	[Oreothlypis] <b>Leiothlypis</b> celata		S
Palm Warbler	[Dendroica] <b>Setophaga</b> palmarum		S
Pine Warbler	[Dendroica] <b>Setophaga</b> pinus	S	S
Purple Finch	[Carpodacus] Haemorhous purpureus	S	S
Purple Sandpiper	Calidris [maritime] maritima		S
Ruby-crowned Kinglet	[Regulus] <b>Corthylio</b> calendula		S
Ruff	[Philomachus] <b>Calidris</b> pugnax		S
Seaside Sparrow	[Ammodramus maritimus] Ammospiza maritima	S	S
Sedge Wren	Cistothorus [platensis] stellaris	E	E
Snowy Owl	[Nyctea] <b>Bubo</b> scandiacus		S
Sooty Shearwater	[Puffinus griseus] Ardenna grisea		S
Swamp Sparrow	Melospiza [Georgiana] <b>georgiana</b>		S
Tennessee Warbler	[Oreothlypis peregrine] Leiothlypis peregrina		S
Wilson's Warbler	[Wilsonia] <b>Cardellina</b> pusilla		S
Yellow Warbler	[Dendroica] <b>Setophaga</b> petechia	S	S
Yellow-throated Warbler	[Dendroica] Setophaga dominica	S	S
			ervation tatus
Mammals:			_
[Finback] Fin Whale	Balaenoptera physalus		E
Indiana Myotis [Bat]	Myotis sodalis		Е
North American Least Shrew	Crytotis parva		U

## Proposed New N.J.A.C. 7:25-4.13(c) – Effect of Federal (ESA) Listing

[Smokey] Smoky Shrew

Eastern Water Shrew

Sorex fumeus

Sorex albibarbis

U

U

The Department is proposing new N.J.A.C. 7:25-4.13(c) that adds species that have been added to the Federal list of endangered and threatened species of wildlife pursuant to the ESA, but that are not included on the existing State list of endangered species at N.J.A.C. 7:25-4.13(b). Proposed N.J.A.C. 7:25-4.13(c) explains that the Department will add, by notice of administrative change published in the New Jersey Register, any species added to the Federal list of endangered and threatened species, currently codified at 50 CFR 17.11, to the New Jersey list of endangered species at N.J.A.C. 7:25-4.13 if that species is not already included on the New Jersey list. When species are added to the New Jersey list in this manner, they will be assigned the conservation status equivalent to the Federal status; that is, species listed Federally as "endangered" will be assigned an endangered conservation status (E), while species listed Federally as "threatened" will be assigned a threatened conservation status (T) on the list at N.J.A.C. 7:25-4.13.

Historically, the Department has, through rulemaking, either added species to the State's list of endangered species before the species was Federally listed pursuant to the ESA based on the species status in the State, or the Department listed the species following Federal listing based on such listing and/or subsequent State analysis. The proposed provision would streamline the addition of Federally endangered or threatened species not yet on the State's list and would be consistent with the statutory definition of "endangered" at N.J.S.A. 23:2A-3, which provides that "... the term shall also be deemed to include any species or subspecies of wildlife appearing on any federal endangered species list." Further, the New Jersey Legislature's definition of "endangered species" within ENSCA included both species for which the risk of extinction or extirpation was imminent and those for which the risk was likely to become imminent in the

future. This definition is effectively identical to that of the Federal government's enacted around the same time.

Finally, the proposed regulation that allows the Department to add Federally listed species to the State's list is also consistent with the fundamental understanding of wildlife population ecology that the threat of extirpation faced by a species population at a smaller geographic scale will always be at least as severe as that faced by the larger population to which the smaller population belongs, that is, the risk to a local population can be greater than to a larger population of which it is part, but it can never be lesser. This proposed regulation, therefore, further explains that the Department may change the conservation status of a species that it has added through the proposed notice method if the Department's investigations determine that the threat of extirpation at the State level is greater than the threat reflected in the Federal designation. In other words, the Department may, through rulemaking, identify a species on the State list as having a higher conservation status than the Federal government assigns it.

# Endangered and Nongame Species Advisory Committee (N.J.A.C. 7:25-4.18) – Amendments Regarding Term of Chairperson and Frequency of Meetings

The Department is proposing an amendment at N.J.A.C. 7:25-4.18(a)4, regarding the term of the chairperson of ENSAC. The proposed amendment provides that the chairperson of ENSAC will remain as chairperson after their term has expired until the Commissioner approves a successor chairperson. In the past, ENSAC has been left without a chairperson due to the expiration of the chairperson's term before a successor was named. The proposed amendment is intended to prevent such a vacancy.

The Department also proposes to amend N.J.A.C. 7:25-4.18(c) to indicate that ENSAC meetings will be held at a frequency determined by ENSAC. ENSAC's bylaws, which can be found at <a href="https://dep.nj.gov/njfw/councils-and-committees/endangered-and-nongame-species-advisory-committee/">https://dep.nj.gov/njfw/councils-and-committees/endangered-and-nongame-species-advisory-committee/</a>, were updated in 2019 to require bi-monthly meetings, except as otherwise determined by the chairperson in consultation with the Chief of the Department's Endangered and Nongame Species Program.

#### **Amendments to Other Department Rules**

The Department is also proposing to amend the following rules to reflect the abovedescribed changes in the definition of "threatened" and "endangered," or an iteration of those terms, as conservation statuses: Forestry at N.J.A.C. 7:3-1.3; Coastal Zone Management Rules at N.J.A.C. 7:7-9.36; Water Quality Management Planning at N.J.A.C. 7:15-1.5; Green Acres Program at N.J.A.C. 7:36-2.1; and Highlands Water Protection and Planning Act Rules at N.J.A.C. 7:38-1.4. Three of these rules, Water Quality Management Planning, Green Acres Program, and Highlands Water Protection and Planning Act Rules, define the terms "threatened species" or "threatened wildlife species" or "endangered species" or "endangered wildlife species." The Department is amending these rules to identify these terms as conservation statuses pursuant to the Endangered and Nongame Species Conservation Act, and not pursuant to the regulatory lists at N.J.A.C. 7:25-4.13 or 4.17. In addition, these three rules have an incorrect cross-reference to ENSCA: N.J.S.A. 23:2A-13 instead of the correct cross-reference of N.J.S.A. 23:2A-1. The proposed amendments correct the errors. The Forestry rules at N.J.A.C. 7:3-1.5 use the term "State-listed threatened or endangered species," and describe "threatened" and "endangered" in separate numbered paragraphs. Both descriptive paragraphs require similar

changes as those in the Water Quality Management Planning, Green Acres Program, and Highlands Water Protection and Planning Act Rules to identify these terms as conservation statuses pursuant to ENSCA, rather than the regulatory lists at N.J.A.C. 7:25-4.13 and 4.17. Lastly, the Coastal Zone Management Rules at N.J.A.C. 7:7-9.36(f) explain that when the term "endangered or threatened wildlife" is used, it refers to the lists at N.J.A.C. 7:25-4.13 for "endangered" and N.J.A.C. 7:25-4.17 for "threatened." The proposed amendments indicate that the terms of "endangered" and "threatened" are conservation statuses. In addition, the Department is deleting the reference to the nongame species list, which is no longer applicable as a result of the proposed consolidation of threatened species on the list of endangered species at N.J.A.C. 7:25-4.13.

## **Social Impact**

The Department anticipates that the rulemaking will have a net positive social impact. The overall purpose of the rules at N.J.A.C. 7:25-4, Endangered, Nongame, and Exotic Wildlife, is to provide for the conservation of endangered and nongame wildlife by appropriately regulating the taking, possession, transportation, exportation, processing, sale or offer for sale, or shipment of wildlife in accordance with the intent and language of ENSCA. Additional rules within Title 7, including, but not limited to, the Coastal Zone Management Rules, N.J.A.C. 7:7, Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A, Flood Hazard Area Control Act Rules, N.J.A.C. 7:13, Water Quality Management Planning, N.J.A.C. 7:15, Highlands Water Protection and Planning Act Rules, N.J.A.C. 7:38, and the Pinelands Comprehensive Management Plan, N.J.A.C. 7:50, incorporate by reference the lists at N.J.A.C. 7:25-4 to further

the goal of species conservation, primarily through provisions that provide protections to endangered and threatened species habitats.

The proposed listing, delisting, or change in conservation statuses for wildlife species on either the list of endangered species or the nongame species list helps to promote effective and efficient conservation of biological diversity and will have a positive social impact. Periodic reevaluation and revision of the State's lists of endangered and other indigenous nongame wildlife, based upon the best available scientific data, improves the reliability of these lists, and furthers the efforts of the Department 72onserveation of the State's indigenous wildlife populations by helping the Department direct resources at the species that have the greatest conservation need. This, in turn, benefits New Jersey citizens by targeting conservation actions and land use regulations to maximize benefits to wildlife species that are at greatest risk and ensure that the level of regulation, including regulation of land use, reflects the current conservation status of species utilizing that land. Accuracy in the lists of endangered and nongame wildlife provides a focus for conservation efforts by State, county, municipal, and nonprofit organizations, such as in land acquisition and management, planning, and zoning.

Minor negative social impacts may result from the addition of a total of 13 butterfly species to the List of Endangered Species at N.J.A.C. 7:25-4.13 and the List of Regulated Nongame Species at N.J.A.C. 7:25-4.17. Specifically, those who engage in the collection of butterflies as a hobby will be curtailed from collecting species added to either of these lists, as the provisions at N.J.A.C. 7:25-4.2 limit collection and possession of these species for specified purposes. These provisions, however, do not pertain to the majority of indigenous butterfly species that remain unlisted, so any negative social impact resulting from regulating the collection of species being added is expected to be negligible and countered by the positive

impact to conservation of regulating the taking, possession, and sale of the species determined to be endangered, threatened, or special concern.

The addition of four species of freshwater fish to the endangered species list will have no social impact. Atlantic sturgeon has been listed in the Fish and Game Council's Fish Code at N.J.A.C. 7:25-6.20 as having a closed season since 2015 (50 N.J.R. 801(b)). Bridle Shiner, Ironcolor Shiner, and Slimy Sculpin have been listed as indigenous fish in the Fish Code at N.J.A.C. 7:25-6.2 that have no season pursuant to N.J.A.C. 7:25-6.1(h) since the definition of indigenous was put into the Fish Code in 2014 (46 N.J.R. 281(b)).

The proposed amendment at N.J.A.C. 7:25-4.13(c) which allows the Department to publish a notice of administrative change to add to the List of Endangered Species those species that have been designated as endangered or threatened pursuant to the Federal Endangered Species Act, will provide improved clarity, consistency, and predictability regarding the listing of Federally listed species that are not already on the State list. In addition, it will forestall delays in adding species to the State list that have been shown to be imperiled. By improving the efficiency of adding Federally listed species to the New Jersey list of endangered species, these outcomes are anticipated to be socially beneficial.

The proposed amendment at N.J.A.C. 7:25-4.18(a)4 provides that the chairperson of ENSAC remains in office until a new chairperson is appointed. Without the chairperson to help staff with agendas, organization, and oversight of meetings, and the like, ENSAC could not function. This proposed amendment will allow ENSAC to continue to function while the chairperson is serving in an expired term. For this reason, the amendment will have a positive social impact by improving the efficiency of ENSAC.

# **Economic Impact**

The Department anticipates that the rulemaking will have nominal direct and indirect economic impacts. Consistent with the legislative intent of ENSCA to guide the development and implementation of conservation programs that afford "special protection to species and subspecies of wildlife indigenous to the State found to be endangered" (N.J.S.A. 23:2A-2(b)) and to "insure the continued participation of all forms of wildlife in the state's ecosystems" (N.J.S.A. 23:2A-2(a)), the Department includes provisions throughout its Title 7 rules that aim to conserve habitats supporting species appearing on the list of endangered species. Such rules are designed to "maintain, and to the extent possible, enhance species numbers." N.J.S.A. 23:2A-2(b). In more limited areas and circumstances, most notably within the Highlands Preservation Area (N.J.S.A. 13:20-7) and for specific activities subject to the Flood Hazard Area Control Act Rules, the Department's rules also provide protection for habitats supporting species designated as Special Concern (SC) on the nongame species list. The most significant rules that include restrictions or conditions on development and other activities that may adversely affect endangered and threatened wildlife species, particularly by adversely modifying their habitats, include the Coastal Zone Management Rules, Freshwater Wetlands Protection Act Rules, Flood Hazard Area Control Act Rules, Water Quality Management Planning, Highlands Water Protection and Planning Act Rules, and the Pinelands Comprehensive Management Plan. Additional Department rules that include measures designed to assist with the conservation of endangered wildlife include: Environmental Justice, N.J.A.C. 7:1C, Discharges of Petroleum and Other Hazardous Substances, N.J.A.C. 7:1E, Underground Storage Caverns, N.J.A.C. 7:1F, Forestry, N.J.A.C. 7:3, Storm Water Management, N.J.A.C. 7:8, Surface Water Quality Standards, N.J.A.C. 7:9B, Ground Water Quality Standards, N.J.A.C. 7:9C, New Jersey Pollutant Discharge

Elimination System, N.J.A.C. 7:14A, Financial Assistance Programs for Environmental Infrastructure Facilities, N.J.A.C. 7:22, Solid Waste, N.J.A.C. 7:26, and the Green Acres Program, N.J.A.C. 7:36.

The proposed amendments to the nongame species list and the list of endangered species are anticipated to have indirect impacts as a result of these other Department rules within Title 7 that reference the lists, but are not anticipated to have significant economic impacts overall.

There are two broad sets of anticipated economic impacts. One set emanates from the provisions of the rules of this subchapter that limit, control, or prohibit the taking, possession, transportation, importation, exportation, sale or offer for sale, or shipment of any nongame species or any wildlife on the list of endangered species. The other set emanates from the provisions found within these other Title 7 rules referenced above, which incorporate the list of endangered species, as well as elements of the nongame species list, by reference. These provisions are directed at addressing impacts to endangered, threatened, and special concern species habitats.

As to the first set of foreseeable economic impacts emanating from the provisions of this subchapter, the primary purpose of ENSCA is to facilitate the management of "... all forms of wildlife to insure their continued participation in the ecosystem" and to provide "special protection to species or subspecies of wildlife indigenous to the State ... found to be endangered." N.J.S.A. 23:2A-2. This purpose is in accordance with and is supportive of biodiversity conservation, the direct economic benefits and important economic value of which are well-documented. The economic values provided by biodiversity have been broadly categorized to include products (for example, forest products, medicinal products), services (for example, water purification, flood control, pollination, pest control), recreation (for example,

birding, ecotourism), aesthetic, spiritual, and existence values. Many of these values have been

described and quantified specifically for New Jersey (Costanza, Robert; Wilson, Matthew A.; Troy, Austin; Voinov, Alexy; Liu, Shang, and D'Agostino, John. 2006. The Value of New Jersey's Ecosystem Services and Natural Capital. Report to New Jersey Department of Environmental Protection, Division of Science, Research, and Technology, Trenton, NJ. https://njseagrant.org/wp-content/uploads/2000/10/The-Value-of-New-Jerseys-Ecosystem-Services-and-Natural-Capital-1.pdf; and Liu, Shang; Costanza, Robert; Troy, Alexy; D'Agostino, John; Mates, William. 2010. Valuing New Jersey's Ecosystem Services and Natural Capital: A Spatially Explicit Benefit Transfer Approach. 2010. Environ Manage. 2010 Jun;45(6):1271-85. doi: 10.1007/s00267-010-9483-5. Epub 2010 Apr 16. PMID: 20396885. https://link.springer.com/article/10.1007/s00267-010-9483-5). The purpose of amending the list of endangered species and the nongame species list to reflect up-to-date information on their populations and statuses in the State is to focus attention, including, but not limited to, regulatory attention and limited financial and other resources, on those components of wildlife biodiversity most in need of conservation attention. These updates to the lists improve the effectiveness and efficiency of wildlife conservation and, by extension, biodiversity conservation. The positive economic impacts of these amendments, therefore, result from their positive contribution to

Within the provisions of the proposed amended subchapter that regulate taking, possession, transportation, exportation, processing, sale or offer for sale, or shipment of listed wildlife, conservation benefits result from the constraints or, in some cases, the prohibition of activities that could directly harm species populations by killing, removing, or harming

biodiversity conservation generally, and the myriad associated positive economic impacts of

conserving biodiversity.

individual animals. The rules provide important exceptions for activities, such as research and education, that are intended to foster and improve conservation. Most of the economic benefits of biodiversity conservation to which this rulemaking contributes, accrue to the State at large, that is, to all of its citizens, although in some cases, particular groups, such as the people who enjoy recreational activities related to wildlife, may benefit more than others.

Such adverse economic impacts as might occur from administering the requirements and restrictions prescribed within the proposed amended subchapter primarily affect those individuals and entities engaged in activities for which the collection and holding of an endangered or nongame species is a requirement. Certain rules that already exist at N.J.A.C. 7:25-4 (for example, **N.J.A.C.** 7:25-4.6, 4.10, 4.14, and 4.15) include more specific, additional requirements for, or provide additional restrictions on, permits authorizing holding and collecting endangered species that do not apply to nongame species generally. Consequently, there will be a nominal additional regulatory burden, including application and payment for permits and compliance with permit conditions, imposed on the subset of individuals and entities who desire to collect or hold the 62 species being added to the list of endangered species at N.J.A.C. 7:25-**4.13** as a result of the proposed structural change that adds nongame species categorized as threatened to the list of endangered species (32 species); or as a result of worsened status from the nongame species list (20 species); or as a result of being added to the endangered species list and not currently being listed on either list (10 species). While such impacts, to the extent such permit requirements and restrictions are deemed to hold an economic impact, are expected to be reduced as they relate to the breeding population of bald eagle (which is being proposed for removal from the list of endangered species at N.J.A.C. 7:25-4.13 based on improved

conservation status), this species will still receive the protections of special concern (SC) status on the nongame species list.

Other than the additional restrictions and conditions placed on the collection and holding of species on the list of endangered species noted above, the statutory and regulatory restrictions on the possession, sale, and taking of nongame and endangered wildlife apply equally to all species listed in ENSCA, regardless of species conservation status. Consequently, where the proposed amendments change the status of species of nongame wildlife already listed at N.J.A.C. 7:25-4.17, they will have no effect with respect to current rules regarding the possession and collection of nongame species at N.J.A.C. 7:25-4.2, 4.6, 4.7, and 4.14. As each species, with the exception of the breeding population of bald eagles, that the Department proposes to remove from the lists has been determined as non-indigenous to New Jersey, the removal of these species will also have little to no economic impact. The only foreseeable economic impact resulting from the proposed amendments to the lists is the regulation of the additional 38 species being proposed to be added to the combined lists that do not currently appear on either list. As the four species of freshwater fish proposed for addition to the nongame species list were each previously listed in the Fish Code without open seasons, no economic impacts are anticipated by their inclusion. There are more than 500 permit holders in any given year who collect, hold, exhibit, or sell regulated indigenous nongame wildlife. Of those permits, fewer than one-eighth relate to species appearing on the list of endangered species. Those permit holders engaged in typical zoological, scientific, educational, and other activities will still be able to obtain such permits in most circumstances. The main potential negative economic impact, therefore, is the time currently required to complete permit applications and the required yearly reporting, in addition to paying the nominal permit fees (\$10.00 to \$150.00).

New permit applications are not complex or highly technical and are typically completed in a few minutes to an hour by the applicant without the need to retain paid professional assistance. Permittees who are applying for a yearly permit after the initial application spend even less time completing the paperwork.

As to the second set of indirect economic impacts emanating from the other Title 7 rules discussed above, and consistent with the purpose of ENSCA described above, provisions to conserve habitats supporting species appearing on the list of endangered species (and in much more limited circumstances described below, species categorized as special concern on the nongame species list) are included within these other Title 7 rules. The most significant of these rules that restrict or condition development and other activities that may adversely affect endangered and threatened wildlife species, particularly by adversely modifying their habitats, are the Coastal Zone Management Rules, Freshwater Wetlands Protection Act Rules, Flood Hazard Area Control Act Rules, Water Quality Management Planning, Highlands Water Protection and Planning Act Rules, and the Pinelands Comprehensive Management Plan.

The greatest potential for economic impacts from the proposed amendments adding or removing species from the list of endangered species or the nongame species list occurs in the context of the three categories of regulations identified below. None of these rules maintain conservation of imperiled wildlife or their habitats as the primary focus. Nevertheless, those persons or entities proposing to engage in activities (primarily, but not exclusively, development activities) that are regulated pursuant to any of the above-cited rules may be required to first determine if any listed species, or habitats suitable for any of the listed species, occurs within the area impacted by the proposed activity, and to then assess the potential impact of the proposed activity on such species and habitats. Where necessary, the persons or entities may need to

modify the proposed activity to minimize any adverse impacts and/or mitigate any unavoidable impacts to regulated indigenous nongame and endangered wildlife and their habitats.

The rules fall into three general categories. The first category includes rules that apply to distinct geographic areas with legislatively defined boundaries. These rules are generally designed to protect an array of environmentally important or sensitive resources, among which are endangered and threatened wildlife. Examples include the Pinelands Comprehensive Management Plan, the Highlands Water Protection and Planning Act Rules, and the Coastal Zone Management Rules. Within these rules, the presence of endangered, threatened, or special concern species or their habitats does not determine the applicability of the rules; that is, it does not determine whether a particular activity is subject to the rules. Department authorization for a regulated activity is required regardless of the potential for adverse impacts to threatened or endangered wildlife or their habitats and there are no protections for endangered or threatened wildlife or their habitats when a proposed activity is otherwise not regulated. These rules apply conditions or restrictions when the regulated activity has been determined likely to adversely affect habitats, and by extension, local populations of threatened and endangered wildlife.

The second broad category are those rules that apply to specific environmentally sensitive or environmentally important landforms and ecosystems throughout the State (for example, Freshwater Wetlands Protection Act Rules that focus on wetlands, while the Flood Hazard Area Control Act Rules focus on riparian areas). Within these rules, the presence of endangered or threatened species habitats can increase the geographic scope of the regulated area (for example, the width of the "transition area" in freshwater wetlands and the width of the "riparian zone" in areas subject to the flood hazard rules), so they may determine whether a particular proposed activity is subject to the rules and would, therefore, require Department authorization. Within

the Flood Hazard Area Control Act Rules, rules regarding requirements for measures designed to maintain or improve the ability of wildlife to move through riparian corridors (N.J.A.C. 7:13-12.7(d)3 and (e)3) apply to endangered, threatened, and special concern wildlife.

The third category includes rules that focus on a specific activity with broad potential for environmental impact. The Water Quality Management Planning rules are the principal example. Within these rules, Department approval is required to expand areas serviced by municipal wastewater treatment facilities. The presence of environmentally sensitive areas within an area proposed for expansion of sewer service, of which habitat for endangered or threatened species is one such environmentally sensitive area, is generally prohibited. In the case of habitat for endangered or threatened wildlife, expansion of sewer service is permissible only if the applicant can demonstrate, and the Department concludes, that impacts to the habitat are sufficiently avoided or mitigated.

The types and scope of activities that come under regulatory purview vary widely among this suite of regulatory authorities, such that a particular activity that may impact endangered and threatened wildlife may be regulated within one set of rules but be exempt or not meet a threshold for regulation within a different set of rules. In addition, there is overlap in regulatory jurisdiction in some areas such that a particular activity may be simultaneously subject to more than one set of rules.

The above-described complexity, coupled with the variety of species involved and the variability in species habitat requirements and particulars of the regulated activities, renders it virtually impossible to accurately quantify potential economic impacts (and other related impacts, for example, Jobs Impact, Housing Affordability Impact) in any manner that would have predictive utility. The Department has assessed the overall economic impact of each of

these rules, including the provisions related to the conservation of endangered, threatened, and other nongame wildlife and their habitats, in accordance with the New Jersey Administrative Procedure Act, N.J.S.A. 52:14B-1 through 31, at the time the rules pertaining to endangered, threatened, and other nongame wildlife and their habitats within each of these rules were first proposed and whenever such rules were amended and will, as required, continue to do so. The best approach, therefore, is to attempt to estimate the degree to which the proposed amendments to the lists might change the geographic scope where persons proposing to engage in regulated activities under the three categories above may be required to address the potential for impacts to endangered, threatened, and, where applicable, special concern wildlife and to modify proposed activities to minimize any such impacts.

Within the above cited rules, the Department relies upon documented occurrences of listed species interpreted through the Department's "Landscape Maps of Habitat for Endangered, Threatened, and Other Priority Wildlife" (Landscape Maps) to identify areas of documented endangered, threatened, and special concern species habitat. The greatest potential for economic impact exists where there are developable lands not currently identified as endangered or threatened species habitat (or as endangered, threatened, or special concern species habitat where a Highlands Preservation Area Approval (N.J.A.C. 7:38-1.3) is required) that would become identified as endangered or threatened (or special concern species habitat in the Highlands Preservation Area) habitat as a result of this rulemaking.

To gain an understanding of the degree to which the proposed amendments based on changes in conservation status, which add a total of 30 species to the list of endangered species (see Table 2) while removing one species, will impact the spatial extent of lands identified as habitat for endangered or threatened species, the Department conducted a Geographic

Information Systems (GIS) analysis that examined the location of documented occurrences of species proposed to be added to the list of endangered species in relation to the current Landscape Maps' delineation of current endangered and threatened species habitats. The results of this analysis indicated that approximately three percent of the current, documented occurrences of species proposed to be added to the list of endangered species fall in lands that are not currently mapped as endangered or threatened species habitat or part of the State's inventory of conserved lands. It is likely that an additional portion of the three percent of occurrences that lay outside of currently mapped habitat or protected open space lay within areas that are otherwise restricted from development due to other environmental sensitivities (for example, wetlands).

A separate analysis was performed for the Highlands Preservation Area where special concern species are afforded the same regulatory protection within the Highlands Water Protection and Planning Act Rules as endangered and threatened wildlife. That analysis showed that less than two percent of occurrence records within the Highlands Preservation Area were outside areas currently mapped as documented habitat for endangered, threatened, and special concern wildlife on the Department's Landscape Maps.

Thus, unless an individual or entity intends to conduct a regulated activity in or about the additional three percent of lands with habitats supporting the 30 species proposed for the endangered species list (or less than two percent regarding the Highlands Preservation Area for special concern species), there will be no additional regulatory impact. These analyses indicate that, for each of three categories of Title 7 rules discussed above, the overall additional regulatory burden produced by the proposed amendments would affect a small amount of the total land of the State and would result in, at most, a nominal increase in the number of activities

where endangered and threatened species (and, in the Highlands Preservation Area, special concern species) might result in curtailment or modification of such activities.

# **Environmental Impact**

The proposed amendments to the endangered species list and the nongame species list will have significant indirect positive environmental impacts. All endangered and nongame wildlife species have the same protections pursuant to ENSCA, thus, merely adding a species to either the list of endangered species or the nongame species list or changing a conservation status of a species on the lists does not change the protections available. No one may "take" an endangered or nongame species, and no one may collect or possess an endangered or nongame species without a wildlife permit. The protections afforded pursuant to ENSCA with regard to taking, possessing, selling, and transporting species of wildlife and the protections of habitat provided within the various Title 7 land use rules are aimed, pursuant to ENSCA, at ensuring the "continued participation" of "all forms of wildlife in the ecosystem" by providing "species or subspecies of wildlife indigenous to the state" determined to be endangered with "special protection in order to maintain and to the extent possible enhance their numbers." N.J.S.A. 23:2A-2. The proposed amendments indirectly contribute to the conservation of the State's ecosystems and the biological diversity that is essential to a healthy and stable human environment. As noted above, other rules within Title 7 incorporate the lists and include provisions that afford special protections to the habitats for endangered, threatened, and to a lesser degree, special concern wildlife in order to further the conservation goals of ENSCA.

The proposed amendments to the list of endangered species and nongame wildlife lists to reflect currently available data will contribute to positive environmental impacts by promoting

the conservation of those species and their habitats most in need of protection. Additionally, municipal authorities use these lists to guide local land use planning, and private, non-profit organizations use these lists for a broad range of conservation purposes. These entities are aided by updated and current lists reflecting the best understanding of the conservation status of wildlife species. The addition of species to the list of endangered species and to the nongame species list with a conservation status of special concern helps to promote the conservation of species by highlighting the need for investigations to improve the understanding of species' populations and conservation needs.

Lastly, the requirement for authorization to collect and hold these species in accordance with the existing provisions of this subchapter for the 30 species that are being added to the list of nongame wildlife at N.J.A.C. 7:25-4.17 will also contribute to conservation of these species by limiting such activities or by ensuring such activities are performed in a manner and degree that does not harm species populations.

As noted in the Economic Impact, there is a high degree of overlap of lands supporting endangered and threatened wildlife currently listed in the existing rules and the lands that support species proposed for listing. Consequently, it is unlikely that the habitat protection provided through the other Title 7 rules that include such protections will significantly expand the areas subject to protection, the identification of additional and/or different species to which such measure will apply will ensure that the specific conservation measures required through permitting are appropriately targeted.

The proposed removal of species that the existing rules list as endangered on the list of endangered species or a change in status of species the existing rules categorize as threatened (or as special concern within the Highlands Preservation Area) on the nongame species list to a

status reflecting reduced conservation concern may result in local adverse environmental impacts insofar as such change in status will remove the habitat protections provided such species within the Title 7 rules cited above. In some areas, particularly where no other endangered or threatened species habitats occur (or special concern species habitats in the Highlands Preservation Area), this may result in loss of habitat and habitat features critical to local populations of the delisted species. Mitigating against such adverse impacts is the fact that, as noted in the Economic Impact, there is significant overlap in the lands that provide habitat for various endangered and threatened species. Consequently, the habitat protections afforded the species that remain listed will often provide some collateral benefit to other wildlife, including species that have lost the protection afforded threatened and endangered species. All species proposed to be removed from the list of endangered species, and all species that the existing rules list as threatened on the nongame species list, remain protected in the context of activities regulated or prohibited pursuant to ENSCA and N.J.A.C. 7:25-4, and migratory birds remain protected by the Migratory Bird Treaty Act (16 U.S.C. §§ 703 through 712) and its implementing regulations. Most importantly, the finding by the Department that a species no longer warrants listing as an endangered or threated species requires that the Department has determined that populations have recovered to the extent that such adverse impacts as may result from their delisting will not result in their extirpation from the State in the immediate or foreseeable future.

### **Federal Standards Statement**

N.J.S.A. 52:14B-1 et seq., requires State agencies that adopt, readopt, or amend State rules that exceed Federal standards or requirements to include in the rulemaking document a Federal standards analysis.

The proposed rulemaking implement aspects of ENSCA that direct specific conservation attention to species indigenous to New Jersey. The Department proposes to amend the lists of species determined to be "endangered" at N.J.A.C. 7:25-4.13 in accordance with the definition of "endangered" provided at N.J.S.A. 23:2A-3. The sole link to Federal standards that exists within the New Jersey statute is the definition of "endangered," which provides that the "... term shall also be deemed to include any species or subspecies of wildlife appearing on any Federal endangered species list." Three of the species included in this proposed rulemaking, Rusty Patch Bumble Bee, Atlantic Sturgeon, and Northern Myotis, are being added to the list of endangered species in compliance with this requirement.

Although conceptually similar to the definitions of "endangered" and "threatened" within the Federal ESA, the definitions apply to the risk of extirpation at very different scales — the ENSCA definitions apply at the State level, whereas the ESA definitions apply to the risk of extirpation at the national and global level. That the provision referencing Federally endangered species in the ENSCA statutory definition of "endangered species" includes the word "also" substantiates that the Legislature intended that species beyond those listed pursuant to Federal law be included in the State list of endangered species. Consequently, the Federal endangered and threatened wildlife lists (see 50 CFR 17.11(h), 223.102(a) and 224.101(a)) established pursuant to the ESA reflect the status of species as they occur throughout the United States, while the list of endangered species within this rulemaking at N.J.A.C. 7:25-4.13 reflect the status of the species as they occur within the State.

The proposed amendments to the definitions of the terms "endangered" and "threatened" and the structural change that moves species with a "threatened" conservation status to the List

of Endangered Species at N.J.A.C. 7:25-4.13 more closely align the State structure with the existing Federal structure of categorizing imperiled species.

The proposed new language at N.J.A.C. 7:25-4.13(c) that allows the Department to publish a notice of administrative change to add species listed as endangered or threatened pursuant to the ESA to the List of Endangered Species at N.J.A.C. 7:25-4.13(b) will ensure expeditious consistency with the ESA. The proposed provision creates a default listing status (that is, threatened or endangered) equivalent to Federal listing status for those species that are listed pursuant to the ESA, while recognizing the New Jersey statutory authority to amend the State status of Federally listed species by regulation, in addition to, including species on the State list beyond those listed pursuant to the ESA.

Beyond the stipulation provided pursuant to the ENSCA statutory definition of "endangered species," there is no other nexus to Federal standards within the New Jersey statute and, thus, no additional Federal standards or requirements that require a Federal standards analysis. The status categories assigned at N.J.A.C. 7:25-4.17 to nongame wildlife species not included on the list of endangered species at N.J.A.C. 7:25-4.13 have no Federal equivalent. This is because ENSCA directs the Department to promulgate a list of all nongame wildlife, whereas the Federal ESA addresses only imperiled species determined to be at risk of extinction. All nongame species, regardless of status assigned at N.J.A.C. 7:25-4.17, are equally protected from "taking" pursuant to ENSCA. Consequently, no further analysis is required.

## **Jobs Impact**

The Department has evaluated this rulemaking to determine the impact of the proposed amendments on job creation and retention in the State. The listing or delisting, or change in

conservation status, of wildlife species on either the endangered species list or the nongame species list will neither create jobs nor reduce the number of jobs in the State.

To the extent that other Title 7 rules incorporate by reference the proposed amended lists, the Economic Impact statement demonstrates that the amendments will have nominal impact on development and other activities regulated by the other Title 7 rules and, consequently, no discernable impact on jobs.

# **Agriculture Industry Impact**

Pursuant to N.J.S.A. 52:14B-4(a)2, the Department has evaluated this rulemaking to determine the nature and extent of the proposed amendments' impact on the agriculture industry. The proposed amendments list, delist, or change the conservation status of a wildlife species on the list of endangered species or the nongame wildlife list and have no direct impact upon the agriculture or aquaculture industries.

Indirect impacts pursuant to the other Title 7 rules that provide protection to endangered and threatened wildlife or their habitats (and to special concern species and their habitats in the Highlands Preservation Area) are likely to be very limited given the broad exemption provided to ongoing agricultural activities within this rulemaking. For example, a person would be able to conduct forestry activities, which are considered agricultural activities by virtue of being a method under which a person may obtain farmland assessment on the property (see P.L. 2009, c. 256 and N.J.A.C. 7:3-5), as long as the forestry plan included an analysis of the endangered species on the property and addressed how best to avoid negative impacts to the species.

Activities that involve the expansion of agriculture and aquaculture activities within or into wetlands comprise a notable exception to the broad exemptions generally provided to

ongoing agriculture within the Title 7 rules that include protections for endangered and threatened wildlife habitats. Impacts to endangered and threatened wildlife are among many possible environmental impacts that the Title 7 rules require to be addressed and that can impact issuance of any required permits and conditions attached to their issuance. Slightly fewer than half of the species proposed to be added to the list of endangered species occur in wetlands habitat or in habitat (for example, streams) that may be affected by activities in nearby wetlands. When proposed agriculture expansion into such wetlands may adversely impact these species, such impacts are likely to play a role in Department (or other applicable regulating agency such as the Pinelands Commission) determinations.

# **Regulatory Flexibility Analysis**

In accordance with the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., the Department has reviewed the proposed rulemaking for reporting, recordkeeping, or other compliance requirements on small businesses. The proposed rulemaking provides no reporting or recordkeeping requirements. At N.J.A.C. 7:25-4, reporting or recordkeeping requirements apply only to those who are required to obtain a permit from the Department to collect, hold, transport, or sell species listed on the lists at N.J.A.C. 7:25-4.13 and 4.17. As discussed above in the Economic Impact, the number of such individuals is very limited and includes primarily those in academic research institutions, and, to a lesser degree, in environmental consulting businesses. The Department does not propose additional recordkeeping or reporting requirements on such individuals. However, the addition of species to the two lists may result in more persons being subject to the existing requirement for permits for the collecting, holding, selling, or transporting of listed species and to the existing recordkeeping and

reporting requirements applicable to such permits. The Department is unable to estimate the number of individuals and entities that may become subject to the requirements, or how many are small businesses. The cost of obtaining permits is discussed in the Economic Impact above.

In the context of other Title 7 rules that incorporate the amended lists by reference, the proposed amendments do not impose any new recordkeeping, reporting, or other compliance requirements.

# **Housing Affordability Impact Analysis**

Pursuant to N.J.S.A. 52:14B-4, the Department has evaluated this rulemaking to determine the nature and extent of the proposed rulemaking on the impact to housing affordability. The proposed rulemaking lists or delists, or changes the conservation status, of wildlife species on the endangered species list or nongame species list.

As described above, the Department has determined that the proposed amendments to the list of endangered wildlife and the nongame species list will produce a nominal indirect economic impact emanating from their incorporation, by reference, within other Title 7 rules. The factors that result in a conclusion of a nominal economic impact led the Department to conclude that there will also be no discernable impact on housing affordability. The factors leading to this conclusion are the relatively small number of documented occurrences of the species being added to the list of endangered species at N.J.A.C. 7:25-4.13 (and special concern species being added to the nongame species list at N.J.A.C. 7:25-4.17 within the Highlands Preservation Area) and the high degree of overlap between the occurrences of these newly listed species and the documented occurrences of species and/or with lands already restricted from development.

# **Smart Growth Development Impact Analysis**

Pursuant to N.J.S.A. 52:14B-4, the Department has evaluated this rulemaking to determine the nature and extent of the proposed rulemaking on the impact to smart growth development. The proposed rulemaking lists or delists, or changes the conservation status, of wildlife species on the list of endangered species and the nongame species list and are unlikely to evoke a change in housing production within Planning Areas 1 or 2, or within designated centers, pursuant to the State Development and Redevelopment Plan.

In the context of "smart growth," areas that provide habitats for endangered and threatened species (and special concern species within the Highland Preservation Area) are generally located in areas outside of Planning Areas 1 or 2 and "designated centers" pursuant to the State Development and Redevelopment Plan. Consequently, to the nominal degree that the addition of species to the list of endangered species and, within the Highlands, of species categorized as special concern on the nongame species list might impact housing development, such impact would mostly affect housing development considered or proposed for Planning Areas 3 and 4, and particularly, 5, while having minimal impact on development within areas designated as Planning Areas 1 or 2, or as designated centers, in the State Development and Redevelopment Plan.

# Racial and Ethnic Community Criminal Justice and Public Safety Impact

The Department has evaluated this rulemaking and determined that it will not have an impact on pretrial detention, sentencing, probation, or parole policies concerning adults and juveniles in the State. Accordingly, no further analysis is required.

**Full text** of the proposal follows (additions indicated in boldface **thus**; deletions indicated in brackets [thus]):

**CHAPTER 3** 

**FORESTRY** 

SUBCHAPTER 1. GENERAL PROVISIONS

7:3-1.3 Definitions

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise.

. .

"State-listed threatened or endangered species" means one of the following:

- 1. An animal species **or subspecies** listed and assigned a **conservation** status of threatened pursuant to the Endangered[,] **and** Nongame[, and Exotic Wildlife rules at N.J.A.C. 7:25-4.17] **Species Conservation Act, N.J.S.A. 23:2A-1 et seq.**;
- 2. An animal species or subspecies [of wildlife] listed [as an] and assigned a conservation status of endangered species pursuant to the Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A-13 et seq.; or
  - 3. (No change.)

. . .

CHAPTER 7

COASTAL ZONE MANAGEMENT RULES

SUBCHAPTER 9. SPECIAL AREAS

7:7-9.36 Endangered or threatened wildlife or plant species habitats

- (a) (e) (No change.)
- (f) The Department is responsible for the promulgation of the official Endangered and Threatened Wildlife lists pursuant to the Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A-1 et seq. [These] The list[s] includes wildlife species that [are] have been assigned a conservation status of endangered [and] or threatened in New Jersey, as well as wildlife species officially listed as endangered or threatened pursuant to the Endangered Species Act of 1973, 16 U.S.C. §§ 1531 et seq. [Because] As the list[s are] is periodically revised by the Department in accordance with N.J.S.A. 23:2A-1 et seq., the list[s are] is not published as part of this [rule] **subchapter**. The list[s are] **is** found at N.J.A.C. 7:25-4.13 [and 4.17], the rule[s] adopted pursuant to the Endangered and Nongame Species Conservation Act. [To obtain a copy of the most current Endangered and Threatened Wildlife lists, please contact the Department, Division of Fish and Wildlife, Endangered and Nongame Species Program at the Division's web address, https://www.nj.gov/dep/fgw/ensphome.htm, or by writing to the Division at Mail Code 501-03, PO Box 420, Trenton, New Jersey 08625-0420.] The list can be found at https://dep.nj.gov/njfw/wildlife/endangered-threatened-and-special-concern-species/. (g) - (i) (No change.)

### CHAPTER 15

## WATER QUALITY MANAGEMENT PLANNING

SUBCHAPTER 1. GENERAL PROVISIONS AND PLANNING REQUIREMENTS

7:15-1.5 Definitions

The following words and terms, as used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise.

. .

"Endangered wildlife species" means species of wildlife included on the list of endangered species with a conservation status of "endangered" promulgated pursuant to the Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A-[13]1 et seq., [at N.J.A.C. 7:25--4.13,] and any species or subspecies of wildlife [appearing] designated as "endangered" on any Federal [endangered] wildlife species list promulgated pursuant to the Endangered Species Act of 1973, 16 U.S.C. §§ 1531 et seq.

. . .

"Threatened wildlife species" **means** species [designated as "threatened"] of wildlife included on the list [defining the status of indigenous nongame wildlife species of New Jersey,] of endangered species **with a conservation status of "threatened,"** promulgated pursuant to the Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A-1 et seq., [at N.J.A.C. 7:25—4.17,] and any species or subspecies of wildlife [appearing] designated as "threatened" on any Federal [threatened] species list promulgated pursuant to the Endangered Species Act of 1973, 16 U.S.C. §§ 1531 et seq.

• • •

## CHAPTER 25

## DIVISION OF FISH AND WILDLIFE RULES

SUBCHAPTER 4. ENDANGERED, NONGAME, AND EXOTIC WILDLIFE

7:25-4.1 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

. . .

["Endangered" (E) means a species whose prospects for survival within the State are in immediate danger due to one or many factors: a loss of or change in habitat, overexploitation, predation, competition, disease. An endangered species requires immediate assistance or extinction will probably follow. See N.J.A.C. 7:25-4.13(b) for listing.]

"Endangered" (E) means the conservation status assigned to a species or subspecies of wildlife included on the list of endangered species at N.J.A.C. 7:25-4.13(b) whose prospects of survival or recruitment in the State are in imminent jeopardy.

. . .

"Indigenous" means a species of wildlife living within its natural range that regularly and predictably occurs within the State or that has historically regularly and predictably occurred within the State. The term excludes species that have been deliberately or accidentally introduced to the State through human activity.

"List of endangered species" means the list of wildlife indigenous to New Jersey determined to meet the statutory definition of an endangered species. The list of endangered species includes species assigned a conservation status of "endangered" and species assigned a conservation status of "threatened."

"List of regulated nongame species" means the list of wildlife indigenous to New Jersey that meet the statutory definition of a nongame species that the Department regulates pursuant to N.J.S.A. 23:2A-1 et seq., this chapter, and any other associated New Jersey statutes and rules. Species included on this list may be assigned the following

conservation statuses: Secure-stable (S), Special concern (SC), or Undetermined-unknown (U).

. . .

"Secure-stable" (S) means the conservation status assigned to a species [that appears] or subspecies of wildlife included on the list of nongame species at N.J.A.C. 7:25-4.17 determined to be secure in the State and not in any immediately foreseeable danger of becoming "endangered," "threatened," or "special concern."

"Special concern" (SC) means the conservation status assigned to a species [that] or subspecies of wildlife included on the list of nongame species at N.J.A.C. 7:25-4.17 determined to warrant[s] special attention by the Department because of inherent vulnerability to environmental deterioration or habitat modification that would result in its becoming [threatened] an endangered species if conditions surrounding the species begin or continue to deteriorate. Factors that can lead to classification as special concern include, but are not limited to, species rarity in the State, highly specialized food and/or habitat requirements, low reproductive rate, isolated populations of the species within the State, and/or other characteristics that make the species particularly susceptible to environmental or habitat changes. This category includes a species that meets the foregoing criteria and for which there is little understanding of its current population status in the State.

["Threatened" (T) means a species that may become endangered if conditions surrounding it begin to or continue to deteriorate.]

"Threatened" (T) means the conservation status assigned to a species or subspecies of wildlife included on the list of endangered species at N.J.A.C. 7:25-4.13(b) for which the

Department has determined the prospects of survival or recruitment in the State are likely within the foreseeable future to become in jeopardy.

"Undetermined-unknown" (U) means **the conservation status assigned to** a species that cannot be assigned a status of endangered, threatened, special concern, or secure-stable because not enough information exists on which to base such a determination.

. .

7:25-4.13 List of endangered species

- [(a) N.J.S.A. 23:2A-4 provides that the Department shall conduct investigations concerning wildlife in order to develop information relating to populations, distributions, habitat needs, limiting factors and other biological and ecological factors. On the basis of such investigations of wildlife and other available scientific and commercial data, the Department may by regulation promulgate a list of those species and subspecies of wildlife indigenous to the State which are determined to be endangered, giving their common and scientific names by species and subspecies.]
- (a) Pursuant to the statutory definition of endangered species at N.J.S.A. 23:2A-3, the Department has established and assigned two levels of conservation status for species listed within this section: "endangered" and "threatened."
- (b) [In accordance therewith, the following species are determined to be endangered] Each species listed below has been assigned its appropriate conservation status of "E" for "endangered" or "T" for "threatened":
  - [1. Shortnose Sturgeon, Acipenser brevirostrum
  - 2. Blue-spotted Salamander, Ambystoma laterale

- 3. Eastern Tiger Salamander, Ambystoma tigrinum tigrinum
- 4. Southern Gray Treefrog, Hyla chrysocelis
- 5. Bog Turtle, Glyptemys muhlenbergi
- 6. Timber Rattlesnake, Crotalus horridus horridus
- 7. Corn Snake, Elaphe guttata guttata
- 8. Bald Eagle, Haliaeetus leucocephalus (Breeding population)
- 9. Peregrine Falcon, Falco peregrinus (Breeding population)
- 10. Northern Goshawk, Accipiter gentilis (Breeding population)
- 11. Northern Harrier, Circus cyaneus (Breeding population)
- 12. Red-shouldered Hawk, Buteo lineatus (Breeding population)
- 13. Short-eared Owl, Asio flammeus (Breeding population)
- 14. Pied-billed Grebe, Podilymbus podiceps (Breeding population)
- 15. Upland Sandpiper, Bartramia longicauda
- 16. Sedge Wren, Cistothorus platensis
- 17. Loggerhead Shrike, Lanius ludovicianus (Non-breeding population)
- 18. Henslow's Sparrow, Ammodramus henslowii
- 19. Vesper Sparrow, Pooecetes gramineus (Breeding population)
- 20. Piping Plover, Charadrius melodus
- 21. Roseate Tern, Sterna dougallii
- 22. Least Tern, Sternula antillarum
- 23. Black Skimmer, Rynchops niger
- 24. Atlantic Hawksbill, Eretmochelys imbricata imbricata
- 25. Atlantic Loggerhead, Caretta caretta

- 26. Atlantic Ridley, Lepidochelys kempi
- 27. Atlantic Leatherback, Dermochelys coriacea coriacea
- 28. Sperm Whale, Physeter macrocephalus
- 29. Blue Whale, Balaenoptera musculus
- 30. Finback Whale, Balaenoptera physalus
- 31. Sei Whale, Balaenoptera borealis
- 32. Humpback Whale, Megaptera novaeangliae
- 33. Northern Right Whale, Balaena glacialis
- 34. Bobcat, Lynx rufus
- 35. Eastern Woodrat, Neotoma floridana
- 36. Mitchell's Satyr, Neonympha mitchellii mitchellii
- 37. Northeastern Beach Tiger Beetle, Cicindela dorsalis dorsalis
- 38. American Burying Beetle, Nicrophorus americanus
- 39. Dwarf Wedgemussel, Alasmidonta heterodon;
- 40. American Bittern, Botaurus lentiginosus (Breeding population)
- 41. Appalachian Grizzled Skipper (butterfly), Pyrgus wyandot;
- 42. Arogos Skipper (butterfly), Atrytone arogos arogos;
- 43. Bronze Copper (butterfly), Lycaena hyllus;
- 44. Queen Snake, Regina septemvittata
- 45. Brook Floater (mussel), Alasmidonta varicosa;
- 46. Green Floater (mussel), Lasmigona subviridis.
- 47. Black Rail, Laterallus jamaicensis (Breeding population)
- 48. Golden-winged Warbler, Vermivora chrysoptera (Breeding population)

- 49. Red Knot, Calidris canutus (Non-breeding population)
- 50. Indiana Bat, Myotis sodalis
- 51. Gray Petaltail (dragonfly), Tachopteryx thoreyi.]

		Conservation
Common Name	Scientific Name	<b>Status</b>
BIVALVES		
Brook Floater	Alasmidonta varicosa	${f E}$
Dwarf Wedgemussel	Alasmidonta heterodon	${f E}$
Eastern Lampmussel	Lampsilis radiata	T
Eastern Pondmussel	Ligumia nasuta	T
Green Floater	Lasmigona subviridis	${f E}$
Tidewater Mucket	Leptodea ochracea	T
Triangle Floater	Alasmidonta undulata	T
Yellow Lampmussel	Lampsilis cariosa	T
<u>INSECTS</u>		
Acadian Hairstreak	Satyrium acadica	${f E}$
American Burying Beetle	Nicrophorus americanus	${f E}$
Appalachian Grizzled Skipper	Pyrgus centaureae wyandot	${f E}$
Banner Clubtail	Hylogomphus apomyius	T
Bronze Copper	Tharsalea hyllus	${f E}$
Brook Snaketail	Ophiogomphus aspersus	T
<b>Checkered White</b>	Pontia protodice	T
Common Roadside-Skipper	Amblyscirtes vialis	T
Dotted Skipper	Hesperia a. attalus	T
Eastern Arogos Skipper	Atrytone a. arogos	${f E}$
Eastern Beach Tiger Beetle	Habroscelimorpha d.	${f E}$
S	dorsalis	
Frosted Elfin	Callophrys irus	T
Georgia Satyr	Neonympha areolatus	T
Gray Comma	Polygonia progne	T
Gray Petaltail	Tachopteryx thoreyi	${f E}$
Harpoon Clubtail	Phanogomphus descriptus	T
Hoary Elfin	Callophrys polios	T
Kennedy's Emerald	Somatochlora kennedyi	T
Leonard's Skipper	Hesperia leonardus	T
Mitchell's Satyr	Neonympha m. mitchellii	${f E}$
Myrina Fritillary	Boloria m. myrina	$\mathbf{E}$
Northern Metalmark	Calephelis borealis	${f E}$
Pepper and Salt Skipper	Amblyscirtes hegon	T

Robust Baskettail	Epitheca spinosa	T
<b>Rusty-patched Bumble Bee</b>	Bombus affinis	$\mathbf{E}$
Superb Jewelwing	Calopteryx amata	T
Two-spotted Skipper	<b>Euphyes bimacula</b>	T
FISH		
Atlantic Sturgeon	Acipenser oxyrinchus	${f E}$
Bridle Shiner	Notropis bifrenatus	$\mathbf{E}$
Ironcolor Shiner	Notropis chalybaeus	$\mathbf{E}$
Shortnose Sturgeon	Acipenser brevirostrum	$\mathbf{E}$
Slimy Sculpin	Cottus cognatus	T
AMPHIBIANS:		
Blue-spotted Salamander	Ambystoma laterale	${f E}$
Cope's Gray Treefrog	Dryophytes chrysoscelis	T
Eastern Long-tailed Salamander	Eurycea l. longicauda	T
Eastern Mud Salamander	Pseudotriton m. montanus	T
Eastern Tiger Salamander	Ambystoma tigrinum	$\mathbf{E}$
Pine Barrens Treefrog	Dryophytes andersonii	T
REPTILES		
Bog Turtle	Glyptemys muhlenbergii	${f E}$
Eastern Copperhead	Agkistrodon contortrix	T
Green Sea Turtle	Chelonia mydas	${f E}$
Hawksbill Sea Turtle	Eretmochelys imbricata	$\mathbf{E}$
Kemp's Ridley Sea Turtle	Lepidochelys kempii	$\mathbf{E}$
Leatherback Sea Turtle	Dermochelys coriacea	$\mathbf{E}$
Loggerhead Sea Turtle	Caretta caretta	$\mathbf{E}$
Northern Pinesnake	Pituophis m. melanoleucus	T
Northern Scarletsnake	Cemophora coccinea copei	T
Queensnake	Regina septemvittata	$\mathbf{E}$
Red Cornsnake	Pantherophis guttatus	$\mathbf{E}$
Timber Rattlesnake	Crotalus horridus	$\mathbf{E}$
Wood Turtle	Glyptemys insculpta	T

		<b>Conservation</b> Conservation	
		<u>Status – </u>	Status –
BIRDS		<b>Breeding</b>	Non-breeding
American Bittern	<b>Botaurus lentiginosus</b>	${f E}$	(SC)
American Kestrel	Falco sparverius	T	T
Barn Owl	Tyto alba	T	(SC)
Barred Owl	Strix varia	T	T
<b>Black-crowned Night-Heron</b>	Nycticorax nycticorax	T	(SC)
Black Rail	Laterallus jamaicensis	$\mathbf{E}$	${f E}$
Black Skimmer	Rynchops niger	$\mathbf{E}$	${f E}$

Bobolink	Dolichonyx oryzivorus	Т	(SC)
Eastern Meadowlark	Sturnella magna	Ť	(SC)
Golden-winged Warbler	Vermivora chrysoptera	E	E
Grasshopper Sparrow	Ammodramus	$\overline{\mathbf{T}}$	(SC)
Property of the second	savannarum		(3.2)
Henslow's Sparrow	Centronyx henslowii	$\mathbf{E}$	${f E}$
Horned Lark	Eremophila alpestris	T	(SC)
Kentucky Warbler	Geothlypis formosa	T	(SC)
King Rail	Rallus elegans	$\mathbf{E}$	(U)
Least Tern	Sternula antillarum	$\mathbf{E}$	$\mathbf{E}$
Loggerhead Shrike	Lanius ludovicianus	-	$\mathbf{E}$
Long-eared Owl	Asio otus	T	T
Northern Goshawk	Accipiter gentilis	$\mathbf{E}$	<b>(S)</b>
Northern Harrier	Circus hudsonius	$\mathbf{E}$	(SC)
Peregrine Falcon	Falco peregrinus	T	<b>(S)</b>
Pied-billed Grebe	Podilymbus podiceps	$\mathbf{E}$	(SC)
Piping Plover	Charadrius melodus	$\mathbf{E}$	E
Red Knot	Calidris canutus	-	${f E}$
Red-headed Woodpecker	Melanerpes	T	(SC)
•	erythrocephalus		( )
Red-shouldered Hawk	<b>Buteo lineatus</b>	$\mathbf{E}$	(SC)
Roseate Tern	Sterna dougallii	$\mathbf{E}$	E
Saltmarsh Sparrow	Ammospiza caudacuta	T	(SC)
Savannah Sparrow	Passerculus	T	<b>(S)</b>
-	sandwichensis		. ,
Sedge Wren	Cistothorus stellaris	$\mathbf{E}$	$\mathbf{E}$
Short-eared Owl	Asio flammeus	$\mathbf{E}$	(SC)
Upland Sandpiper	Bartramia longicauda	$\mathbf{E}$	${f E}$
Vesper Sparrow	Pooecetes gramineus	$\mathbf{E}$	(SC)
Yellow-crowned Night-Heron	Nyctanassa violacea	T	(SC)
MAMMALS		Conservati	<u>on</u>
Allegheny Woodrat	Neotoma magister	<u>Status*</u> E	
Blue Whale	Balaenoptera musculus	E	
Bobcat	Lynx rufus	T	
Eastern Small-footed Myotis	Myotis leibii	E	
Fin Whale	Balaenoptera physalus	E	
Humpback Whale	Megaptera novaeangliae	E	
Indiana Myotis	Myotis sodalis	E	
Little Brown Myotis	Myotis lucifugus	E	
North Atlantic Right Whale	Eubalaena glacialis	E	
Northern Myotis	Myotis septentrionalis	E	
Sei Whale	Balaenoptera borealis	E	
Sperm Whale	Physeter macrocephalus	E	
Speim whate	i nysetti maerutephaius	IV.	

Tricolored Bat Perimyotis subflavus E

\*E means "Endangered," S means "Secure-stable," SC means "Special concern," T means "Threatened," and U means "Undetermined-unknown." These terms are defined at N.J.A.C. 7:25-4.1.

(c) Any species indigenous to the State that is Federally listed as Endangered or Threatened pursuant to the Endangered Species Act of 1973, 16 U.S.C. §§ 1531 et seq. (ESA), and that is not also listed at (b) above shall be added by the Department to the list at (b) above by notice of administrative change, published in the New Jersey Register, and shall be assigned a State conservation status equivalent to the Federal status assigned pursuant to the ESA. For species added to the list at (b) above in accordance with the foregoing with a conservation status of T, the Department may, through a rulemaking in accordance with the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq., assign a status of E as determined by its investigations of the status of the species in the State.

7:25-4.17 List [providing conservation status of New Jersey's indigenous] **of regulated** nongame [wildlife] species

The following table sets forth the list and conservation status of **the State's** nongame wildlife species [indigenous to New Jersey] in their respective taxonomic classes. For the vertebrate classes of mammals, birds, reptiles, and amphibians, the list is intended to include all indigenous nongame species[, that is, all indigenous species for which a legal hunting or trapping season has not been established or that have not been classified as an endangered species and that are native to the eastern United States and regularly and predictably occur within the State or its waters]. [Freshwater and] **The list does not include** marine **or diadromous** fish. [are not included on this list because none are currently considered "nongame."] For [the] **freshwater** 

**fish and all** invertebrate classes, the list includes only those species for which the Department has determined that their conservation status is [either "threatened" or] "special concern" (SC). The list is ordered alphabetically by species' common names within each taxonomic class.

		[Species] <b>Conservation</b>
Species	Scientific Name	Status*
BIVALVES		
Creeper	Strophitus [undulates] undulatus	SC
[Eastern Lampmussel	Lampsilis radiate	T
Eastern Pondmussel	Ligumia nasuta	T
Tidewater Mucket	Leptodea ochracea	T
Triangle Floater	Alasmidonta undulate	T
Yellow Lampmussel	Lampsilis cariosa	T]
CRUSTACEANS		
Eastern Fairy Shrimp	Eubranchipus holmanii	SC
<u>INSECTS</u>		
	a 11	~~
Arrowhead Spiketail	Cordulegaster [oblique] obliqua	SC
[Banner Clubtail	Gomphus apomyius	T
Brook Snaketail	Ophiogomphus asperses	T]
Baltimore Checkerspot	Euphydryas phaeton	SC
 [Checkered White	Pontia protodice	T]
Cobra Clubtail	[Gomphus] <b>Gomphurus</b> vastus	SC
	Nymphalis I-album	SC SC
Compton Tortoiseshell	Somatochlora [Georgiana] <b>georgiana</b>	SC SC
Coppery Emerald	Somatocinora [Georgiana] georgiana	SC
[Dotted Skipper	Hesperia attalus slossonae	SC]
Dusted Skipper	Atrytonopsis hianna	SC
 Eyed Brown	Lethe Eurydice	SC
	Zome Zaryaree	50
[Frosted Elfin	Callophrys irus	T
Georgia (Lakehurst) Satyr	Neonympha areolatus septentrionalis	SC]
	7 1	,
Green-faced Clubtail	[Gomphus] Hylogomphus viridifrons	SC
[Harpoon Clubtail	Gomphus descriptus	T]
[Harris'] Harris's Checkerspot	Chlosyne harrisii	SC
	•	

[Hoary Elfin	Callophrys polios	SC]
Hickory Hairstreak	Satyrium caryaevorus	SC
[Kennedy's Emerald	Somatochlora kennedyi	T
Leonard's Skipper	Hesperia leonardus	SC]
Midland Clubtail	[Gomphus] Gomphurus fraternus	SC
Monarch	Danaus plexippus	SC
[Northern Metalmark	Calephelis borealis	SC]
Northern Oak Hairstreak	Satyrium favonius ontario	SC
D 11 Cl 1. 1	[Gomphus] Phanogomphus	90
Rapids Clubtail	quadricolor	SC
[Robust Baskettail	Epitheca spinosa	T]
Rare Skipper	Problema bulenta	SC
Sable Clubtail	[Gomphus] Stenogomphurus rogersi	SC
Septima's Clubtail	[Gomphus] Gomphurus septima	SC
[Ski-tailed] Ski-tipped Emerald	Somatochlora [elongate] elongata	SC
[Silver-bordered Fritillary	Bolaria selene myrina	T]
Sleepy Duskywing	Erynnis brizo	SC
Spatterdock Darner	Rhionaeschna [mutate] mutata	SC
[Superb Jewelwing	Calopteryx amata	T]
[Two-spotted Skipper	Euphyes bimacula	SC]
Elou		
FISH	T .1	9.0
American Brook Lamprey	Lethenteron appendix	SC
Blackbanded Sunfish	Enneacanthus chaetodon	SC
Comely Shiner	Notropis amoenus	SC
Mud Sunfish	Acantharchus pomotis	SC
Northern Hog Sucker	Hypentelium nigricans	SC
Shield Darter	Percina peltata	SC
AMPHIBIANS		
Allegheny <b>Mountain</b> Dusky		
Salamander	Desmognathus ochrophaeus	U
American Toad	Anaxyrus americanus	$\mathbf{S}$
D 1: 77 C	[Hyla gratiosa] <b>Dryophytes</b>	**
Barking Treefrog	gratiosus	U
		_
[Eastern American Toad	Anaxyrus americanus americanus	S

Eastern Mud Salamander	Pseudotriton m. montanus	T]
Eastern Cricket Frog	Acris crepitans	SC
Eastern Newt	Notophthalmus viridescens	$\mathbf{S}$
Eastern Red-backed Salamander	Plethodon cinereus	S
Eastern Spadefoot	Scaphiopus holbrookii	[U] <b>SC</b>
Four-toed Salamander	Hemidactylium scutatum	[U] <b>S</b>
Fowler's Toad	Anaxyrus fowleri	[SC] <b>S</b>
<b>Gray Treefrog</b>	<b>Dryophytes versicolor</b>	S
<b>Green Treefrog</b>	<b>Dryophytes cinereus</b>	$\mathbf{U}$
[Longtail Salamander	Eurycea l. longicauda	T]
Mid-Atlantic Coast Leopard Frog	Lithobates kauffeldi	U
[Northern Cricket Frog	Acris c. crepitans	S]
[Northern Gray Treefrog	Hyla versicolor	S]
	Lithobates pipiens	U
[Northern Spring Peeper	Pseudacris c. crucifer	S]
Northern Slimy Salamander	Plethodon glutinosus	S
[Pine Barrens Treefrog	Hyla andersonii	T
Red-backed Salamander	Plethodon cinereus	S
Red-spotted Newt	Notophthalmus v. viridescens	S
Slimy Salamander	Plethodon glutinosus	S]
Southour Loomand Enga	Lithobates sphenocephalus	S
Southern Leopard Frog Spotted Salamander	[utricularia] Ambystoma maculatum	
1	Pseudacris feriarum	[S] SC
[Upland Chorus Frog Spring Peeper	Pseudacris crucifer	U]
1 0 1		S
Wood Frog	Lithobates [sylvatica]sylvaticus	S
REPTILES		
[Atlantic Green Turtle	Chelonias mydas	T
Common Map Turtle	Graptemys geographica	U
Common Musk Turtle	Sternotherus odoratus	S
Eastern Box Turtle	Terrapene c. Carolina	SC]
Common Five-lined Skink	Plestiodon fasciatus	S
Common Ribbonsnake	Thamnophis s. saurita	S
Dekay's Brownsnake	Storeria d. dekayi	S
Eastern Fence Lizard	Sceloporus undulatus	S
Eastern [Garter Snake] Gartersnake	Thamnophis s. sirtalis	S
Eastern [Hognose] Hog-nosed Snake	Heterodon platirhinos	[S] <b>SC</b>
Eastern [King Snake] Kingsnake	Lampropeltis getula	SC

Eastern [Milk Snake] Milksnake	Lampropeltis t. triangulum	S	
Eastern Mud Turtle	Kinosternon s. subrubrum	[S] U	
Eastern Musk Turtle	Sternotherus odoratus	S	
Eastern [Rat Snake] Ratsnake	[Elaphe] Pantherophis alleghaniensis	[U] <b>S</b>	
[Eastern Redbelly Turtle	Pseudemys rubriventris	U	
Eastern Ribbon Snake	Thamnophis s. sauritus	S]	
Eastern Smooth Earthsnake	Virginia v. valeriae	[U] SC	
[Eive lined Claim]	Eumeces asciatus	111	
[Five-lined Skink	Scincella lateralis	U]	
[Ground] Little Brown Skink	Scincella lateralis	[U] <b>S</b> C	
 Northern Black Racer	Coluber c. constrictor	[U] <b>S</b>	
[Northern Brown Snake	Storeria d. dekayi	S	
Northern Copperhead	Agkistrodon contortrix mokasen	SC	
Northern Fence Lizard	Sceloporus undulatus hyacinthinus	T T	
Northern Pinesnake	Pituophis melanoleucus	T	
Northern Red-bellied Snake	Storeria occipitomaculata	S]	
Northern Diamond-backed Terrapin	Malaclemys t. terrapin	SC	
Northern Map Turtle	Graptemys geographica	U	
Northern Red-bellied Cooter	Pseudemys rubriventris	S	
Northern [Ringneck] Ring-necked	1 seddemys 1 ubriventris	3	
Snake	Diadophis punctatus edwardsii	S	
[Northern Scarlet Snake	Cemophora coccinea copei	U]	
Northern [Water Snake] Watersnake	Nerodia s. sipedon	S	
Red-bellied Snake	Storeria occipitomaculata	S	
Rough [Green Snake] Greensnake	Opheodrys aestivus	[S] <b>SC</b>	
Smooth [Green Snake] <b>Greensnake</b> Southern [Ringneck] <b>Ring-necked</b>	[Liochlorophis] Opheodrys vernalis	[U] SC	
Snake	Diadophis p.punctatus	S	
 [W1 T4]-	Claustaniani	Tri	
[Wood Turtle	Glyptemys insculpta	T]	
Woodland Box Turtle	Terrapene c. carolina	SC	
			[ <u>Non-</u> <u>breeding</u> <u>status*</u> ]
		<u>Conservatio</u>	Conservatio
		<u>n Status*</u> Breeding	<u>n Status*</u> Non-
Species	Scientific Name	[Status*]	Breeding
BIRDS			
American Bittern	Botaurus lentiginosus	<b>(</b> E <b>)</b>	SC
		` /	
[American Kestrel	Falco sparverius	T	T]
L .	1		_

American Oystercatcher	Haematopus [palliates] palliatus	SC	SC
American Tree Sparrow Audubon's Shearwater	[Spizella] <b>Spizelloides</b> arborea <b>Puffinus lherminieri</b>		S <b>S</b>
 Bald Eagle	Haliaeetus leucocephalus	SC	S
Bank Swallow Barn Owl	Riparia riparia Tyto alba	[S] <b>SC</b> [SC] <b>(T)</b>	S SC
 [Barred Owl Bay-breasted Warbler	Strix varia [Dendroica] <b>Setophaga</b> castanea	Т	T] S
Bicknell's Thrush	Catharus bicknelli		SC
 Black Tern	Chlidonias niger		S
Black-billed Cuckoo Blackburnian Warbler	Coccyzus erythropthalmus [Dendroica] <b>Setophaga</b> fusca	SC SC	[S] SC S
	[Delidrolea] Scrophaga rusea	50	
Blackpoll Warbler	[Dendroica] <b>Setophaga</b> striata		S
Black-throated Blue Warbler	[Dendroica] Setophaga caerulescens	SC	S
Black-throated Green Warbler	[Dendroica] <b>Setophaga</b> virens	SC	S
 Blue-headed Vireo	Vireo solitarius	[SC] <b>S</b>	S
Blue-winged Warbler	Vermivora cyanoptera	[S] <b>SC</b>	S
Buff-breasted Sandpiper	[Tryngites] Calidris subruficollis		S
Canada Warbler	[Wilsonia] Cardellina canadensis	SC	[S] <b>SC</b>
Cape May Warbler	[Dendroica tigrine] Setophaga tigrina		SC
Cattle Egret	Bubulcus ibis	[(T)] <b>SC</b>	[SC] <b>S</b>
 Cerulean Warbler	[Dendroica] Setophaga cerulea	SC	SC
Chestnut-sided Warbler	[Dendroica] <b>Setophaga</b> pensylvanica	S	S
Chimney Swift	Chaetura pelagica	[S] <b>SC</b>	S
 Chuck-will's-widow	[Caprimulgus] Antrostomus carolinensis	S	S
 Common Nighthawk	Chordeiles minor	SC	[SC] <b>S</b>
 Common Redpoll	[Acanthus] Acanthis flammea		U

Cooper's Hawk	Accipiter cooperii	[SC] <b>S</b>	S
	Calonectris Diomedea		S
Dark-eyed Junco	Junco hyemalis	[S] <b>U</b>	S
Double-crested Cormorant	[Phalacrocorax auritus] Nannopterum auritum		S
Double-crested Cormorant	Nannopter um auritum		S
Downy Woodpecker	[Picoides] Dryobates pubescens	S	S
	1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		
Eastern Meadowlark	Sturnella magna	[SC] (T)	SC
F 4 W/I 'II	[Caprimulgus] Antrostomus	90	H11 60
Eastern Whip-poor-will	vociferus	SC S	[U] SC
Eastern [Wood Pewee] Wood-Pewee	Contopus virens	S	S
Field Sparrow	Spizella pusilla	[S] <b>SC</b>	S
Tield Spariow	Spizena pasma	[5] 50	5
 [Golden-winged Warbler	Vermivora chrysoptera	E	SC]
Grasshopper Sparrow	Ammodramus savannarum	<b>(</b> T <b>)</b>	SC
Gray-cheeked Thrush	Catharus minimus		[SC] <b>S</b>
[Greater] Great Shearwater	[Puffinus] Ardenna gravis		S
Green Heron	Butorides virescens	[S] <b>SC</b>	S
		_	_
Hairy Woodpecker	[Picoides] <b>Dryobates</b> villosus	S	S
	[Wiles wish Codembo acceptation	[20] 6	C
Hooded Warbler	[Wilsonia] Setophaga citrina	[SC] <b>S</b>	S
 Horned Lark	Eremophila alpestris	(T)	SC
Horned Lark	[Carpodacus] <b>Haemorhous</b>	(1)	50
House Finch	mexicanus	S	S
	10 10 11		
Kentucky Warbler	[Oporornis formosus] Geothlypis formosa	[SC] <b>(T)</b>	SC
Killdeer	Charadrius [vociferous] vociferus	S	S
King Rail	Rallus elegans	(E)	U
		( )	
	[Oceanodroma leucorhoa]		
Leach's Storm-petrel	Hydrobates leucorhous		U
	A signatus	T	TI
[Long-eared Owl	Asio otus	T	T]
•••			

Magnolia Warbler	[Dendroica] Setophaga magnolia	S	S
Mississippi Kite	Ictinia mississippiensis [Oporornis Philadelphia] <b>Geothlypis</b>	S	S
Mourning Warbler	philadelphia		S
Nashville Warbler	[Oreothlypis] Leiothlypis ruficapilla	SC	S
Nelson's Sparrow	Ammospiza nelsoni		S
		(T)	FG 67 6
Northern Goshawk	Accipiter gentilis	(E)	[SC] S
Northern Harrier	Circus [cyaneus] hudsonius	(E)	SC
	[D 110 / ]	[0.0] C	0
Northern Parula	[Parula] <b>Setophaga</b> americana	[SC] S	S
 Northern Shrike	Lanius [excubitor] borealis		S
Olive-sided Flycatcher	Contopus cooperi		[S] <b>SC</b>
Orange-crowned Warbler	[Oreothlypis] Leiothlypis celata		S
Osprey	Pandion haliaetus	[T] <b>S</b>	S
		£ 3	
Palm Warbler	[Dendroica] Setophaga palmarum		S
	t lasser ages I		
Peregrine Falcon	Falco peregrinus	[E] <b>(T)</b>	[SC] <b>S</b>
			. ,
Pied-billed Grebe	Podilymbus podiceps	<b>(E)</b>	SC
	• •	. ,	
Pine Warbler	[Dendroica] Setophaga pinus	S	S
Prairie Warbler	[Dendroica] Setophaga discolor	[S] <b>SC</b>	S
Purple Finch	[Carpodacus] Haemorhous purpureus	S	S
Purple Martin	Progne subis	[S] <b>SC</b>	S
Purple Sandpiper	Calidris [maritime] maritima		S
	. ,		
Red-headed Woodpecker	Melanerpes erythrocephalus	(T)	[T] <b>SC</b>
	1 7 1	. ,	
Red-shouldered Hawk	Buteo lineatus	<b>(E)</b>	SC
		` '	
Rose-breasted Grosbeak	Pheucticus ludovicianus	[S] <b>SC</b>	S
	[Sterna maxima] Thalasseus		
Royal Tern	maximus	S	S
Ruby-crowned Kinglet	[Regulus] Corthylio calendula		S

Ruddy Turnstone Ruff Rusty Blackbird	Arenaria interpres [Philomachus] Calidris pugnax Euphagus carolinus		[S] SC S [S] SC
Saltmarsh Sparrow	[Ammodramus caudacutus] Ammospiza caudacuta	[SC] <b>(T)</b>	[S] <b>SC</b>
Sandwich Tern Savannah Sparrow	Thalasseus sandvicensis Passerculus sandwichensis	(T)	S S
Seaside Sparrow	[Ammodramus maritimus] Ammospiza maritima	S	S
Sharp-shinned Hawk	Accipiter striatus	SC	[SC] <b>S</b>
Short-eared Owl	Asio flammeus	<b>(E)</b>	SC
 Snowy Owl	[Nyctea] Bubo scandiacus		S
Sooty Shearwater	[Puffinus griseus] Ardenna grisea		S
 Swamp Sparrow	Melospiza [Georgiana] <b>georgiana</b> [Oreothlypis peregrine] <b>Leiothlypis</b>	S	S
Tennessee Warbler	peregrina		S
Vesper Sparrow	Pooecetes gramineus	(E)	SC
Whimbrel	Numenius phaeopus		[SC] <b>S</b>
White-throated Sparrow	Zonotrichia albicollis	[S] U	S
 [Wilson's Phalarope	Phalaropus tricolor		S]
Wilson's Warbler	[Wilsonia] Cardellina pusilla		S
 Worm-eating Warbler	Helmitheros vermivorum	[SC] <b>S</b>	S
 Yellow Warbler	[Dendroica] Setophaga petechia	S	S
 Yellow-crowned Night-Heron	Nyctanassa violacea [Dendroica coronate] Setophaga	[T]	[T] <b>SC</b>
Yellow-rumped Warbler	coronate	[S] U	S

		[Species] Conservation
Species	Scientific Name	Status*
MAMMALS		
[Beluga Whale	Delphinapterus leucas	U]
Big Brown Bat	Eptesicus fuscus	[U] SC
[Blainville's Whale	Mesoplodon densirostris	U]
Bottlenose Dolphin	Tursiops truncatus	[U] <b>SC</b>
Cinereus Shrew	Sorex cinereus	$\mathbf{S}$
	-	
Common Minke Whale	Balaenoptera acutorostrata	U
[Cuvier's Whale	Ziphius cavirostris	U
Dwarf Sperm Whale	Kogia simus	U]
Eastern Chipmunk	Tamias striatus	[U] <b>S</b>
Eastern Mole	Scalopus aquaticus	[U] <b>S</b>
Eastern Pygmy Shrew	Sorex hoyi	U
Eastern Red Bat	Lasiurus borealis	SC
Eastern Water Shrew	Sorex albibarbis	U
[Gervais Beaked Whale	Mesoplodon europaeus	U]
Gray Seal	Halichoerus grypus	[U] <b>S</b>
 Harbor Porpoise	Phocoena phocoena	[U] SC
Harbor Seal	Phoca vitulina	[U] <b>S</b>
Harp Seal	Pagophilus groenlandicus	[U] <b>S</b>
Hooded Seal	Cystophora cristata	[U] <b>S</b>
[Keen Myotis	Myotis keenii	U
Killer Whale	Orcinus orca	U
Hoary Bat	Lasiurus cinereus	U
Least Shrew	Crytotis parva	U
Little Brown Bat	Myotis lucifugus	U]
	injous ruoriugus	0,1
[Masked Shrew	Sorex cinereus	U]
Meadow Jumping Mouse	Zapus hudsonius	[U] <b>SC</b>
Meadow Vole	[Microtis] Microtus pennsylvanicus	[U] <b>S</b>
North American Least Shrew	Crytotis parva	U
North American Porcupine	Erethizon dorsatum	S
North American Red Squirrel	Tamiasciurus hudsonicus	S
 Northern Hoary Bat	Lasiurus cinereus	SC
Northern Short-tailed Shrew	Blarina brevicauda	S

[Pine Vole	Pitymys pinetorum	U
Porcupine	Erethizon dorsatum	U
Pygmy Sperm Whale	Kogia breviceps	U
Red Bat	Lasiurus borealis	U
Red Squirrel	Tamiasciurus hudsonicus	U
Red-backed Mouse	Clethrionomys gapperi	U]
[Short-tailed Shrew	Blarina Brevicauda	U]
Silver-haired Bat	Lasionycteris noctivagans	[U] <b>SC</b>
[Small-footed Myotis	Myotis subulatus	U]
[Smokey] Smoky Shrew	Sorex fumeus	U
Southern Flying Squirrel	Glaucomys volans	[U] <b>S</b>
Southern Red-backed Vole	Clethrionomys gapperi	S
Star-nosed Mole	Condylura cristata	[U] <b>S</b>
[Tri-colored Bat	Perimyotis subflavus	U
True's Beaked Whale	Mesoplodon mirus	U]
[Water Shrew	Sorex palustris	U]
White-footed [Mouse] Deermouse	Peromyscus leucopus	[U] <b>S</b>
Woodland Vole	Microtus pinetorum	S

<sup>\*</sup>E means "Endangered," S means "Secure-stable," SC means "Special concern," T means "Threatened," and U means "Undetermined-unknown." These terms are defined [in] at N.J.A.C. 7:25-4.1

## 7:25-4.18 Endangered and Nongame Species Advisory Committee

(a) The Endangered and Nongame Species Advisory Committee (committee) shall consist of 11 members appointed by the Commissioner. Prior to the making of any said appointments, the Commissioner shall consult with the committee as to their recommendations.

# 1. - 3. (No change.)

4. The committee shall select its chairperson from its membership, subject to the approval of the Commissioner, for a term of four years, and consecutive terms shall be permitted. The chairperson shall continue to serve after the expiration of the chairperson's term until the Commissioner approves a successor.

- (b) The committee shall advise and assist the Commissioner in matters related to the intent of ["]The Endangered and Nongame Species Act,["] P.L. 1973, [c.309] c. 309, codified at N.J.S.A. 23:2A-1 [to -13] through 13. Notwithstanding subsequent departmental action, the Commissioner shall respond, in writing, to all reasonable written comments on policy received from the committee.
- (c) The committee shall transmit its business during regular meetings, held [once each month,] at a time and place **and of a frequency as** designated by the committee. Adequate notice, as defined [under] **pursuant to** the ["] **Byron M. Baer** Open Public Meetings Law,["] P.L. 1975, [c.231] **c. 231**, codified at N.J.S.A. 10:4-6 [to -21] **through 21**, shall be given to the Secretary of State. Six members present shall constitute a quorum.

  (d) (No change.)

## SUBCHAPTER 21. [TERRAPIN REGULATIONS] (RESERVED)

## [7:25-21.1 Designation of terrapin season

No person shall take, catch, possess, expose for sale or attempt to catch or take any Malaclemys palustris, commonly known as diamondbacked terrapin, except between November 1 and March 31.

# 7:25-21.2 Taking of terrapin

No person shall catch, take or attempt to catch or take any terrapin from any of the waters of this State by means of a trap, pot, fyke, seine, weir or net of any description.

## 7:25-21.3 Size requirement

No person shall take, catch, or possess any terrapin less than five inches long, measured lengthwise along the under shell, nor take or destroy the eggs of any terrapin.]

## **CHAPTER 36**

### **GREEN ACRES PROGRAM**

## SUBCHAPTER 2. DEFINITIONS

## 7:36-2.1 Definitions

The following terms, as used in this chapter shall have the following meanings, unless the context clearly indicates otherwise:

. . .

"Endangered species" means species included on the list of endangered species with a conservation status of "endangered" that the Department promulgates pursuant to the Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A-1 et seq., and the Endangered Plant Species List that the Department promulgates pursuant to the Endangered Plant Species List Act, N.J.S.A. 13:1B-15.151 et seq., and any species or subspecies of wildlife appearing on any Federal endangered species list or any species or subspecies of plant designated as listed, proposed, or under review by the Federal government pursuant to the Endangered Species Act of 1973, 16 U.S.C. [§§1531] §§ 1531 et seq.

"Threatened species" means an indigenous nongame wildlife species [of New Jersey designated] included on the list of endangered species with a conservation status of "threatened" that the Department promulgates pursuant to the Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A-[13 et.]1 et seq.,[ and its implementing rules,

N.J.A.C. 7:25-4.17, as most recently amended] and any species or subspecies of wildlife designated as "threatened" on any Federal species list promulgated pursuant to the Endangered Species Act of 1973, 16 U.S.C. §§ 1531 et seq.

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# CHAPTER 38

# HIGHLANDS WATER PROTECTION AND PLANNING ACT RULES SUBCHAPTER 1. GENERAL INFORMATION

### 7:38-1.4 Definitions

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise:

. . .

"Endangered species" means species included on the list of endangered species with a conservation status of "endangered" that the Department promulgates pursuant to the Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A-[13]1 et seq., and the Endangered Plant Species List that the Department promulgates pursuant to the Endangered Plant Species List Act, N.J.S.A. 13:1B-15.151 et seq., and any species or subspecies of wildlife appearing on any Federal endangered species list or any species or subspecies of plant designated as listed, proposed, or under review by the Federal government pursuant to the Endangered Species Act of 1973, 16 U.S.C. §§ 1531 et seq.

. . .

"Threatened species" means an indigenous nongame wildlife species of New Jersey designated with a conservation status of threatened pursuant to the Endangered and Nongame

Species Conservation Act, N.J.S.A. 23:2A-[13]1 et seq.[, and its implementing rules, N.J.A.C.

7:25-4.17, as most recently amended] and any species or subspecies of wildlife designated as "threatened" on any Federal species list promulgated pursuant to the Endangered Species Act of 1973, 16 U.S.C. §§ 1531 et seq.

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