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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 223 and 224

[Docket No. 130626570-3570-01]

RIN 0648-XC742

Endangered and Threatened Wildlife; 90-Day Finding on a Petition to List Alabama Shad as Threatened or Endangered under the Endangered Species Act

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (DOC).

ACTION: Notice of 90-day petition finding, request for information.

SUMMARY: We (NMFS) announce a 90-day finding on a petition to list Alabama shad (*Alosa alabamae*) as threatened or endangered under the Endangered Species Act (ESA) and to designate critical habitat concurrent with the listing. We find that the information in our files presents substantial scientific or commercial information indicating that the petitioned action may be warranted. We will conduct a status review of the species to determine if the petitioned action is warranted. To ensure that the status review is comprehensive, we are soliciting scientific and commercial information regarding this species (see below).

DATES: Information and comments on the subject action must be received by [insert date 60 days after date of publication in the FEDERAL REGISTER].

ADDRESSES: You may submit information, identified by the code NOAA-NMFS_2013-0142, addressed to: Kelly Shotts, Ecologist, by any of the following methods:

- Electronic Submissions: Submit all electronic information via the Federal eRulemaking Portal. Go to <http://www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2013-0142>, click the “Comment Now!” icon, complete the required fields, and enter or attach your comments.
- Facsimile (fax): 727-824-5309
- Mail: NMFS, Southeast Regional Office, 263 13th Avenue South, St. Petersburg, FL 33701
- Hand delivery: You may hand deliver written information to our office during normal business hours at the street address given above.

Instructions: Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are part of the public record and may be posted to <http://www.regulations.gov> without change. All personal identifying information (e.g., name, address), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. We will accept anonymous comments (enter “N/A” in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, or Adobe PDF file formats only.

FOR FURTHER INFORMATION CONTACT: Kelly Shotts, NMFS, Southeast Region, 727-824-5312; or Marta Nammack, NMFS, Office of Protected Resources, 301-427-8469.

SUPPLEMENTARY INFORMATION:

Background

In 1997, we added Alabama shad to our Candidate Species List (62 FR 37562; July 14, 1997). At that time, a candidate species was defined as any species being considered by the

Secretary of Commerce (Secretary) for listing as an endangered or a threatened species, but not yet the subject of a proposed rule (49 FR 38900; October 1, 1984). In 2004, we created the Species of Concern list (69 FR 19975; April 15, 2004) to encompass species for which we have some concerns regarding their status and threats, but for which insufficient information is available to indicate a need to list the species under the ESA. Twenty-five candidate species, including the Alabama shad, were transferred to the Species of Concern list at that time because they were not being considered for ESA listing and were better suited for Species of Concern status due to some concerns and uncertainty regarding their biological status and threats. The Species of Concern status does not carry any procedural or substantive protections under the ESA.

On April 20, 2010, the Center for Biological Diversity (CBD), Alabama Rivers Alliance, Clinch Coalition, Dogwood Alliance, Gulf Restoration Network, Tennessee Forests Council, and the West Virginia Highlands Conservancy (petitioners) submitted a petition to the Secretaries of Interior and Commerce, as well as to the Regional Director of the Southeast Region of the U.S. Fish and Wildlife Service (USFWS), to list 404 aquatic, riparian, and wetland species from the southeastern United States as threatened or endangered under the ESA. The petitioners also requested that critical habitat be designated for all petitioned species. We notified the USFWS' Southeast Region by letter dated May 3, 2010, that the Alabama shad, one of the 404 petitioned species, would fall under NMFS' jurisdiction based on the August 1974 Memorandum of Understanding regarding jurisdictional responsibilities and listing procedures between the two agencies. We proposed to USFWS that NMFS evaluate the petition, for the Alabama shad only, for the purpose of the 90-day finding and any required subsequent listing action. On May 14, 2010, we sent the petitioners confirmation we would be evaluating the petition for Alabama

shad. On February 17, 2011, we published a negative 90-day finding in the Federal Register (76 FR 9320) stating that the petition did not present substantial scientific or commercial information indicating that the requested listing of Alabama shad may be warranted.

On April 28, 2011, in response to the negative 90-day finding, CBD filed a notice of intent to sue DOC and NMFS for alleged violations of the ESA in making its finding. CBD filed the lawsuit in the U.S. District Court for the District of Columbia on January 18, 2012. On June 21, 2013, CBD and DOC/NMFS settled the lawsuit, and we agreed to reevaluate the original listing petition and publish a new 90-day finding. Here we reevaluate the information provided in the 2010 petition, as well as information in our files, including some additional information since the 90-day finding published on February 17, 2011.

ESA Statutory and Regulatory Provisions and Evaluation Framework

Section 4(b)(3)(A) of the ESA of 1973, as amended (U.S.C. 1531 et seq.), requires, to the maximum extent practicable, that within 90 days of receipt of a petition to list a species as threatened or endangered, the Secretary make a finding on whether that petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted, and to promptly publish such finding in the Federal Register (16 U.S.C. 1533(b)(3)(A)). When we find that substantial scientific or commercial information indicates that the petitioned action may be warranted (a “positive 90-day finding”), we are required to promptly commence a review of the status of the species concerned during which we will conduct a comprehensive review of the best available scientific and commercial information. In such cases, we are to conclude the review with a finding as to whether, in fact, the petitioned action is warranted within 12 months of receipt of the petition. Because the finding at the 12-month stage is based on a more thorough review of the available information, as compared to the

narrow scope of review at the 90-day stage, a “may be warranted” finding does not prejudice the outcome of the status review.

Under the ESA, a listing determination may address a “species,” which is defined to also include subspecies and, for any vertebrate species, any distinct population segment (DPS) that interbreeds when mature (16 U.S.C. 1532(16)). A joint NOAA and USFWS policy clarifies the agencies’ interpretation of the phrase “distinct population segment” for the purposes of listing, delisting, and reclassifying a species under the ESA (“DPS Policy”; 61 FR 4722; February 7, 1996). A species, subspecies, or DPS is “endangered” if it is in danger of extinction throughout all or a significant portion of its range, and “threatened” if it is likely to become endangered within the foreseeable future throughout all or a significant portion of its range (ESA sections 3(6) and 3(20), respectively; 16 U.S.C. 1532(6) and (20)). Pursuant to the ESA and our implementing regulations, we determine whether species are threatened or endangered because of any one or a combination of the five factors found in section 4(a)(1): (A) the present or threatened destruction, modification, or curtailment of habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) inadequacy of existing regulatory mechanisms; or, (E) any other natural or manmade factors affecting the species’ existence (16 U.S.C. 1533(a)(1), 50 CFR 424.11(c)).

ESA-implementing regulations issued jointly by NMFS and USFWS (50 CFR 424.14(b)) define “substantial information” in the context of reviewing a petition to list, delist, or reclassify a species as the amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted. In evaluating whether substantial information is contained in a petition, the Secretary must consider whether the petition: (1) clearly indicates the administrative measure recommended and gives the scientific and any

common name of the species involved; (2) contains detailed narrative justification for the recommended measure, describing, based on available information, past and present numbers and distribution of the species involved and any threats faced by the species; (3) provides information regarding the status of the species over all or a significant portion of its range; and, (4) is accompanied by the appropriate supporting documentation in the form of bibliographic references, reprints of pertinent publications, copies of reports or letters from authorities, and maps (50 CFR 424.14(b)(2)).

We evaluate the petitioner's request based upon the information in the petition including its references, and the information readily available in our files. We will accept the petitioner's sources and characterizations of the information presented if they appear to be based on accepted scientific principles, unless we have specific information in our files that indicates that the petition's information is incorrect, unreliable, obsolete, or otherwise irrelevant to the requested action. Information that is susceptible to more than one interpretation or that is contradicted by other available information will not be dismissed at the 90-day finding stage, so long as it is reliable and a reasonable person would conclude it supports the petitioner's assertions. In other words, conclusive information indicating the species may meet the ESA's requirements for listing is not required to make a positive 90-day finding. We will not conclude that a lack of specific information alone negates a positive 90-day finding, if a reasonable person would conclude that the unknown information itself suggests an extinction risk of concern for the species at issue.

To make a 90-day finding on a petition to list a species, we evaluate whether the petition or information readily available in our files presents substantial scientific or commercial information indicating the subject species may be either threatened or endangered, as defined by

the ESA. First, we evaluate whether the information presented in the petition, along with the information readily available in our files, indicates that the petitioned entity constitutes a “species” eligible for listing under the ESA. Next, we evaluate whether the information indicates that the species at issue faces extinction risk that is cause for concern; this may be indicated in information expressly discussing the species’ status and trends, or in information describing impacts and threats to the species. We evaluate any information on specific demographic factors pertinent to evaluating extinction risk for the species at issue (e.g., population abundance and trends, productivity, spatial structure, age structure, sex ratio, diversity, current and historical range, habitat integrity or fragmentation), and the potential contribution of identified demographic risks to extinction risk for the species. We then evaluate the potential links between these demographic risks and the causative impacts and threats identified in section 4(a)(1). We do not conduct additional research, and we do not solicit information from parties outside the agency to help us in evaluating the petition.

Court decisions clarify the appropriate scope and limitations of the Services’ review of petitions at the 90-day finding stage, in making a determination whether a petitioned action “may be” warranted. As a general matter, these decisions hold that a petition need not establish a “strong likelihood” or a “high probability” that a species is either threatened or endangered to support a positive 90-day finding.

Information available on impacts or threats should be specific to the species and should reasonably suggest that one or more of these factors may be operative threats that act or have acted on the species to the point that it may warrant protection under the ESA. Broad statements about generalized threats to the species, or identification of factors that could negatively impact a species, do not constitute substantial information that listing may be warranted. We look for

information indicating that not only is the particular species exposed to a factor, but that the species may be responding in a negative fashion; then we assess the potential significance of that negative response.

Many petitions identify risk classifications made by other organizations or agencies, such as the International Union on the Conservation of Nature (IUCN), the American Fisheries Society (AFS), or NatureServe, as evidence of extinction risk for a species. Risk classifications by other organizations or made under other Federal or state statutes may be informative, but the classification alone may not provide the rationale for a positive 90-day finding under the ESA. For example, as explained by NatureServe, their assessments of a species' conservation status do “not constitute a recommendation by NatureServe for listing under the U.S. Endangered Species Act” because NatureServe assessments “have different criteria, evidence requirements, purposes, and taxonomic coverage than government lists of endangered and threatened species, and therefore these two types of lists should not be expected to coincide” (<http://www.natureserve.org/prodServices/statusAssessment.jsp>). Thus, when a petition cites such classifications, we will evaluate the source information that the classification is based upon, in light of the standards on extinction risk and impacts or threats discussed above.

Alabama Shad Species Description

The Alabama shad (*Alosa alabamae*) is a euryhaline (adapted to a wide range of salinities), anadromous species that spawns in medium to large flowing rivers from the Mississippi River drainage to the Suwannee River, Florida. Alabama shad belong to the family Clupeidae and are closely related to, as well as similar in appearance and life history to, the American shad (*A. sapidissima*). They also resemble the skipjack herring (*A. chrysochloris*), which occurs in the same areas as Alabama shad. Defining characteristics of the Alabama shad

are an upper jaw with a distinct median notch, and the number of gill rakers (41 to 48) on the lower limb of the anterior gill arch. Alabama shad differ morphologically from other Alosa species that occur in the same area by a lower jaw that does not protrude beyond the upper jaw, black spots along the length of the lower jaw, and a dorsal fin that lacks an elongated filament.

Alabama shad are a schooling fish; many individuals swim at the same speed and in the same direction. Research in the Pascagoula River system indicates that Alabama shad move between different riverine habitats seasonally during their first year of life (age 0). In early summer (June to mid-July) small juveniles were found to use sandbar habitats, then move to open channel and steep bank habitats containing large woody debris in late summer and fall (Mickle, 2006). Within these habitat types, Alabama shad tend to select cooler water temperatures (Mickle, 2006). While little is known of the Alabama shad's thermal tolerance, alosines in general are known to be highly sensitive to thermal stress (McCauley and Binkowski, 1982; Beitinger et al., 2000). Juvenile growth rate is about 1.2 inches (30 millimeters [mm]) per month from July to September and then 0.4 inches (10 mm) per month until December. Juveniles remain in fresh water for the first 6 to 8 months of their lives, feeding on small fishes and invertebrates (Ross, 2001) and move into the marine environment between September and December (Mickle et al., 2010) when they are about 2 to 5 inches total length (TL; 50 to 130 mm). There are almost no data describing the marine life stage of Alabama shad (Mettee and O'Neil, 2003; Mickle et al., 2010).

Alabama shad move back into freshwater to spawn. Males appear to enter the river at earlier dates and lower water temperatures than females (Laurence and Yerger, 1966). Arrival at upstream spawning sites also varies by age (Mettee and O'Neil, 2003). Adults broadcast spawn in the spring or early summer over coarse sand and gravel sediments with moderate currents

when river temperatures are between 66-72°F (19-22°C; Mettee and O’Neil, 2003). Adults are thought to feed on small fish, though they likely do not feed during the spawning run (Laurence and Yerger, 1967). Females become larger than males, reaching a little over 18 inches TL (467 mm), while males reach 16.5 inches TL (418 mm; Mettee and O’Neil, 2003). Age-2 and -3 adults are the most prevalent age class of spawning adults (Laurence and Yerger, 1967; Mettee and O’Neil, 2003; Ingram, 2007). Repeat spawning is common, but the percentage of returning spawners is highly variable among years. Annual fecundity ranges from approximately 16,000 to 360,000 eggs per female (Mettee and O’Neil, 2003; Ingram, 2007). Some natal homing tendency is evidenced by genetic differences among drainage basins (Bowen, 2005). The Alabama shad is relatively short lived, up to 6 years (Mettee and O’Neil, 2003).

Analysis of the Petition

First, we evaluated whether the petition presented the information indicated in 50 CFR 424.14(b)(2). The petition clearly indicates the administrative measure recommended and gives the scientific and common names of the taxonomically valid species involved. It contains a narrative justification for the recommended measure, describing the distribution of the species, as well as the threats faced by the species, and it is accompanied by supporting documentation in the form of bibliographic references. The petition presented very limited information to support the petitioned action. However, we have additional information in our files that was not provided in the petition to list the Alabama shad, including the abundance, age structure, and genetic make-up of the Alabama shad in the Apalachicola River, which we discuss in more detail below. We also have additional information clarifying the current range of the species. As stated in our prior 90-day finding (February 17, 2011), we periodically review our Species of Concern list to evaluate whether species should be retained or removed from the list or proposed

for listing under the ESA, and we announced our intent to release a biological review of the species. We considered information in the biological review, publicly released in 2011 (Smith et al., 2011), to make this 90-day finding in response to the petition. Based on the information acquired in our files since publication of the prior finding, primarily the biological review by Smith et al. (2011), we find that substantial scientific or commercial information exists indicating that the petitioned action may be warranted.

The petition states that Alabama shad have likely experienced both dramatic long-term population declines and short-term population declines of as much as 30 percent, and attributes these trends to habitat loss and degradation caused by impoundments, pollution, dredging, and other factors. The petition also states that commercial fishing in the Ohio River was a threat historically. While commercial fishing is no longer a threat, over-exploitation for recreational, scientific, or educational purposes, including intentional eradication or indirect impacts of fishing, were cited by the petition as possible threats to the species. The petition states that it is unknown whether Alabama shad are “appropriately protected,” noting the lack of fish passage at locks and dams as a primary management concern, and cites lack of regulatory protections associated with classifications assigned to Alabama shad by IUCN, NatureServe, AFS, the NMFS Species of Concern Program, and the states of Mississippi, Alabama, and Georgia. Other factors, such as pollution, sedimentation, and drought, are cited in the petition as contributing to declines in shad populations. Thus, the petition states that four of the five causal factors in section 4(a)(1) of the ESA are adversely affecting the continued existence of Alabama shad: habitat modification and degradation due to dams, dredging, and pollution; overutilization in historical commercial fisheries and continued indirect effects from fishing and eradication programs; inadequacy of existing regulatory mechanisms associated with current status

classifications; and other natural or manmade factors, such as pollution, sedimentation, and drought.

Evaluation of Information on Species Status

The petition states that Alabama shad has undergone a major geographic contraction of its historical range that originally spanned the Gulf Coast from the Suwannee River, Florida, to the Mississippi River, and westward in the Ouachita River system (Arkansas/Louisiana) to eastern Oklahoma. The petition states that the species' current range includes the Apalachicola River system below Jim Woodruff Lock and Dam (JWLD); the Pascagoula River drainage in Mississippi; the Conecuh, Choctawhatchee, and Mobile Rivers in Alabama; the Ouachita River, Arkansas; and, the Missouri, Gasconade, Osage, and Meramec Rivers, Missouri. Information in our files indicates that the current range of Alabama shad is larger than that described in the petition. In addition to the rivers listed in the petition, the current range of Alabama shad includes the Apalachicola, Chattahoochee, Flint (ACF) River system above JWLD in Florida/Georgia/Alabama, the Pea River in Alabama, the Pearl River in Louisiana/Mississippi, and the Little Missouri River in Arkansas (Smith et al., 2011).

The petition describes Alabama shad populations as “small” and states that the species is considered “very rare” in large portions of its historical range. The petition cites a NatureServe (2008) estimate that 6 to 20 populations of Alabama shad remain, but neither the petition nor NatureServe (2008) specify the location of those populations, the size of the populations, or the number, locations, and size of historical Alabama shad populations for comparison. The petition includes an observation by Mettee et al. (1996) that “there are only two known remaining runs of Alabama shad in the Mississippi River System and other spawning runs occur in the Florida

Panhandle and southern Alabama.” The petition also presents conclusions by Mettee and O’Neil (2003) that spawning populations of shad are “relatively small.”

After submission of the petition and publication of the prior finding, Smith *et al.* (2011) conducted an extensive search of publications, technical reports, and theses, and surveyed universities, state and Federal facilities, and non-profit organizations throughout the Alabama shad’s historical range for any recent (since 2000) recorded captures. In some systems (e.g., Choctawhatchee River, Alabama; Apalachicola/Flint River System, Florida/Georgia; and Pascagoula/Leaf River system, Mississippi), hundreds to thousands of Alabama shad have been documented since 2000. Records for some systems (e.g., Conecuh River and Mobile Bay, Alabama; Suwannee and Withlacoochee Rivers, Florida; Thibodaux Weir, Louisiana; Chickasawhay River, Mississippi; and, Gasconade River, Missouri) documented less than 25 Alabama shad since 2000. In many systems (e.g., Pea River, Alabama/Florida; Chattahoochee River, Georgia; and, Lake Pontchartrain, Louisiana), Alabama shad have been recorded in those systems since 2000, but the number of Alabama shad observed or captured was not provided in the records. No records of Alabama shad captures or observations since 2000 were found for many systems historically occupied by Alabama shad. It is not clear from the available information whether targeted studies were performed and shad were not present, or if the lack of Alabama shad data is due to the absence of studies or record-keeping in regards to the species. The NatureServe (2008) classification and literature cited by the petition, as well as the information in our files, do not present estimates for historical or current abundance of Alabama shad for comparison and evaluation. However, the low numbers of Alabama shad (less than 25) documented in some rivers and the lack of records of the species in some historically occupied

rivers since 2000 (Smith et al. 2011) indicate that there may be cause for concern over declines in some systems currently and historically occupied by Alabama shad.

The petition cites various status classifications made by the IUCN, NatureServe, AFS, and our Species of Concern program to support its assertion that Alabama shad should be listed as threatened or endangered under the ESA. We do not give any particular weight to classifications established by other scientific and conservation organizations, which may or may not be based on criteria that directly correspond to the listing standards of the ESA. However, we have reviewed and evaluated the underlying information used to develop the various classifications given to Alabama shad by entities listed in the petition.

The petition cites the IUCN's 2010 classification of Alabama shad as "endangered." We found the IUCN updated its classification of Alabama shad in 2012, relying on a more current assessment of the species (citing NatureServe as the "assessor"), and reclassified the status from "endangered" to "data deficient." The IUCN provided justification for their data deficient classification, stating there have been declines in the populations and geographic range of the species but "there has been no quantification of the rate of range or population decline" of the Alabama shad. NatureServe (2008) assigned Alabama shad a rank of "G3" or "vulnerable" given the species' limited distribution in Gulf of Mexico tributaries, reduction in population due to the effects of dams in blocking spawning migration, and degradation of habitat by siltation and pollutants. NatureServe (2008) described the Alabama shad's short-term trend as "relatively stable to decline of 30 percent" and the long-term trend as "relatively stable to decline of 70 percent". The petition also included the 2008 AFS determination that Alabama shad were "threatened" (in imminent danger of becoming endangered throughout all or a significant portion of its range) based on (1) present or threatened destruction, modification, or reduction of habitat

or range, and (2) over-exploitation for commercial, recreational, scientific, or educational purposes. The AFS designation did not provide any information on historical or current numbers, populations, or rates of decline, and also relies on NatureServe's (2008) ranking of "G3/vulnerable" (discussed in the previous section of this finding).

The petitioner also cited our classification of the Alabama shad as a NMFS species of concern as reason to support an ESA listing. As previously noted, Alabama shad became a NMFS Species of Concern in 2004 when it was reclassified from a Candidate Species. We considered the entirety of the scientific and commercial information available to us on the apparent population decline of Alabama shad and the threats that contributed to the apparent decline when we classified Alabama shad as a Species of Concern in 2004. By definition, a Species of Concern is one for which we have some concerns regarding status and threats, but for which insufficient information was available at the time of classification to indicate a need to list the species under the ESA. Our own Species of Concern designation does not include a specific analysis of extinction risk for Alabama shad, or an analysis of population size or trends, or other information directly addressing whether the species faces extinction risk that is cause for concern and may warrant listing.

In addition to these classifications by national and international organizations, the petition provided information that Alabama shad is considered by the states of Mississippi, Alabama, and Georgia to be of high conservation concern. Mississippi, Alabama, and Georgia did not provide population abundance estimates, population trends, or additional information supporting their classifications.

Information currently available in our files provides information on the abundance and increase of the species in one river system, as well as insight into the species' resilience.

Abundance of Alabama shad varied greatly between 2005-2007 (~2,000-26,000) as described by Ely et al. (2008) and was lower than expected based on a comparison with American shad in the Savannah and Altamaha Rivers (100,000-200,000). Ingram (2007) compared growth and age class structure of Alabama shad in the Apalachicola River in 2005-2006 with results from studies conducted in 1967 and 1972 and indicated that the current population structure, with fewer age classes and an earlier age at maturity, was indicative of a declining population. Ingram (2007) also noted that when a population includes only a few year classes, abundance can rebound quickly when environmental conditions change (Rutherford et al., 1992). Fluctuations in abundance of American shad were noted by Ely et al. (2008) and are well documented by others (Hattala et al., 1996; Atlantic States Marine Fisheries Commission, 1998; Moring, 2005). Ely et al. (2008) concluded that commonly observed variations in year-class strength suggest Alabama shad are resilient and capable of quickly increasing in number under favorable conditions.

Evaluation of Information on Threats to the Species

The bulk of the information in the petition is an overview of many of the past and ongoing categories of threats that are believed to have contributed collectively to the decline of 404 aquatic, riparian, and wetland species in the Southeast. The majority of the information on threats in the petition is either general for all 404 species with no clear linkage to Alabama shad or is specifically linked to other species or to habitats not occupied by Alabama shad. The petition states that four of the five causal factors in section 4(a)(1) of the ESA are adversely affecting the continued existence of Alabama shad: (A) present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for the commercial, recreational, scientific, or educational purposes; (C) inadequacy of regulatory mechanisms; and, (D) other natural or manmade factors.

The petition states that Alabama shad have been cut off from many historical spawning areas by dams and locks, citing Robison and Buchanan (1988), Etnier (1997), and Mirarchi et al. (2004). Dams can block access to upriver spawning sites for anadromous species, as well as alter downstream flow regimes. Dams are present on some rivers that are occupied by Alabama shad. The petition did not provide substantial information quantifying the extent to which shad populations have been reduced by the presence of dams, and we have no such information in our files. However, there is some information in our files suggesting that dams may be resulting in reduced populations in some rivers.

Beginning in 2005, a cooperative study supported by multiple local, academic, state, and Federal conservation partners, including NMFS, started tracking movements of Alabama shad and other fish species in the Apalachicola River (USFWS, 2008; Ely et al., 2008; TNC, 2010). The study also evaluated the feasibility of moving fish upriver of JWLD, located at the confluence of the Chattahoochee and Flint Rivers, which presents the first major obstacle on the Apalachicola River to the upstream migration of Alabama shad to their historical spawning grounds. The results of this collaborative study showed that the existing lock at JWLD could be operated to allow fish to move upriver through the lock where they could access spawning habitat.

Based on these results, the U.S. Army Corps of Engineers (USACE) began “conservation locking” (operating the lock at JWLD to provide Alabama shad access to upstream habitat) in 2008. The locks are operated twice a day to correspond with the natural movement patterns of migrating fish during spawning seasons (February through May) each year. Since conservation locking began, Alabama shad have been found to pass upstream of the lock with 45 percent efficiency (Young, 2010) and, as a result, can access over 150 miles (241.4 km) of historical

habitat and spawning areas in the ACF River System for the first time in more than 50 years (TNC, 2010). Young (2010) estimated the number of Alabama shad in the ACF River System at 98,469 in 2010, almost four times larger than the previous high estimate of 25,935 in 2005 (Ely *et al.*, 2008). The number of Alabama shad in the Apalachicola River in 2011 was estimated at 26,193 and was lower than the 2010 value but slightly higher than the maximum abundance in the 2005-2009 period (Young, 2011). The major difference between the 2010 and 2011 Alabama shad spawning runs was a lack of age-1 males in 2011 (Young, 2011). Notably, the 2011 run was dominated by older, larger adult females in excellent condition, a potential indicator of strong year classes in the future (Young, 2011). Sammons and Young (2012) provided the most recent report from the Apalachicola River, estimating the number of Alabama shad at 122,578 in 2012 (the largest since 2005). This spawning run was composed of many males presumed to be from the 2010 year class, as well as numerous older, larger adults of both sexes (presumably recruits from 2009). Sammons and Young (2012) noted that a year of higher than average flows in 2009 may have contributed to spawning and recruitment successes in 2010 and 2012. Sammons and Young (2012) also noted that alosine population sizes commonly fluctuate widely.

Smith *et al.* (2011) conducted a population viability analysis (PVA) of Alabama shad in the ACF River System. A PVA is a modeling tool that estimates the future size and risk of extinction for populations of organisms. Smith *et al.* (2011) estimated returning female abundance in 20 years relative to current numbers and predicted that the ACF population is increasing and under present conditions could reach carrying capacity in about 40 years. The PVA indicated significant declines in abundance only in modeled scenarios with the highest levels and frequencies of mortality (Smith *et al.*, 2011).

We provided funds to USFWS to complete a genetic study on Alabama shad in the Apalachicola River, Florida (Moyer, 2012). The study assessed genetic parameters that may influence its extinction risk. Moyer (2012) determined that there is no observable genetic structure in Alabama shad in the Apalachicola River and that the species exhibits low amounts of genetic diversity.

The conservation locking program in the ACF River System and PVA on the ACF River Alabama shad demonstrated that the species is resilient and is responding positively to increased spawning habitat access. However, this may not be the case in other river systems historically occupied by Alabama shad. The petition relates the construction of dams built on the lower Tombigbee and Alabama Rivers in the 1960s to “steep declines in shad populations” in the Mobile River Basin (Barkuloo *et al.*, 1993; Mettee and O'Neil, 2003; NatureServe, 2008). While there is no information in the petition or our files quantifying declines in Alabama shad populations due to dams, Smith *et al.* (2011) found no records of Alabama shad in the Tombigbee and Alabama Rivers (the examples presented in the petition) since 2000. Therefore, the information presented in the petition and in our files indicates that Alabama shad populations in some rivers may have declined and causes us to be concerned that habitat modification may pose a significant risk to Alabama shad.

In addition to the information on the present and threatened destruction, modification, or curtailment of habitat or range, the petitioner provided information regarding the inadequacy of regulatory mechanisms and other natural or manmade factors that may cause a significant threat to the Alabama shad. However, because we have determined that the information available on the present and threatened destruction, modification, or curtailment of habitat or range may be a

cause for concern for Alabama shad, we do not find a need to conduct a detailed analysis of the other submitted information here.

Petition Finding

We have determined after reviewing information readily available in our files that there is substantial information indicating that the petitioned action may be warranted. Under section 4(b)(3)(A) of the ESA, an affirmative 90-day finding requires that we promptly commence a status review of the petitioned species (16 U.S.C. 1533 (b)(3)(A)).

Information Solicited

To ensure that the status review is based on the best available scientific and commercial data, we are soliciting information on the status of the Alabama shad throughout its range including: (1) historical and current distribution and abundance, including data addressing presence or absence at a riverine scale; (2) historical and current population sizes and trends; (3) biological information (life history, genetics, population connectivity, etc.); (4) landings and trade data; (5) management, regulatory, and enforcement information; (6) any current or planned activities that may adversely impact the species; and (7) ongoing or planned efforts to protect and restore the species and their habitats. We request that all information be accompanied by: (1) supporting documentation such as maps, bibliographic references, or reprints of pertinent publications; and (2) the submitter's name, address, and any association, institution, or business that the person represents. Section 4(b)(1)(A) of the ESA and NMFS' implementing regulations (50 CFR 424.11(b)) require that a listing determination be based solely on the best scientific and commercial data, without consideration of possible economic or other impacts of the determination. During the 60-day public comment period we are seeking information related only to the status of the Alabama shad throughout its range.

Peer Review

On July 1, 1994, NMFS and the U.S. Fish and Wildlife Service published a series of policies regarding listings under the ESA, including a policy for peer review of scientific data (59 FR 34270). The intent of the peer review policy is to ensure listings are based on the best scientific and commercial data available. The Office of Management and Budget issued its Final Information Quality Bulletin for Peer Review on December 16, 2004. The Bulletin went into effect June 16, 2005, and generally requires that all “influential scientific information” and “highly influential scientific information” disseminated on or after that date be peer reviewed. Because the information used to evaluate this petition may be considered “influential scientific information,” we solicit the names of recognized experts in the field that could take part in the peer review process for this status review (see ADDRESSES). Independent peer reviewers will be selected from the academic and scientific community, tribal and other Native American groups, Federal and state agencies, the private sector, and public interest groups.

References Cited

A complete list of all references is available upon request from the Protected Resources Division of the NMFS Southeast Regional Office (see ADDRESSES).

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.).

Dated: September 13, 2013.

Alan D. Risenhoover,
Director, Office of Sustainable Fisheries,
performing the functions and duties of the
Deputy Assistant Administrator for Regulatory Programs,
National Marine Fisheries Service.

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