Proposed Action on Regulations

For information concerning citizen participation in the regulation-making process, see inside front cover.

Symbol Key

- Roman type indicates existing text of regulation.
- *Italic type* indicates proposed new text.
- [Single brackets] indicate text proposed for deletion.

Promulgation of Regulations

An agency wishing to adopt, amend, or repeal regulations must first publish in the Maryland Register a notice of proposed action, a statement of purpose, an estimate of economic impact, an economic impact on small businesses, a notice giving the public an opportunity to comment on the proposal, and the text of the proposed regulations. The opportunity for public comment must be held open for at least 30 days after the proposal is published in the Maryland Register.

Following publication of the proposal in the Maryland Register, 45 days must pass before the agency may take final action on the proposal. When final action is taken, the agency must publish a notice in the Maryland Register. Final action takes effect 10 days after the notice is published, unless the agency specifies a later date. An agency may make changes in the text of a proposal. If the changes are not substantive, these changes are included in the notice of final action and published in the Maryland Register. If the changes are substantive, the agency must repropose the regulations, showing the changes that were made to the originally proposed text.

Proposed action on regulations may be withdrawn by the proposing agency any time before final action is taken. When an agency proposes action on regulations, but does not take final action within 1 year, the proposal is automatically withdrawn by operation of law, and a notice of withdrawal is published in the Maryland Register.

Title 08
DEPARTMENT OF NATURAL RESOURCES

Subtitle 02 FISHERIES SERVICE

08.02.19 Nuisance and Prohibited Species

Authority: Natural Resources Article, §4-205.1, Annotated Code of Maryland

Notice of Proposed Action

[26-172-P]

The Secretary of Natural Resources proposes to amend Regulation **.04** under **COMAR 08.02.19 Nuisance and Prohibited Species**.

Statement of Purpose

The purpose of this action is to update the nuisance species list to reflect changing understandings of which species may present a danger to Maryland's native species and ecosystems. These changes are based on risk assessments conducted by the Department to determine the potential for certain species to have significant negative impacts.

The proposed action:

(1) Removes candiru from the list of species that a person may not import, transport, purchase, possess, propagate, sell, or release into State waters;

(2) Expands the listing of swamp eels to apply to an entire family of fish rather than a specific species;

(3) Adds both Chinese pond mussel and waterwheel as species which a person may not import, transport, purchase, possess, propagate, sell, or release into State waters; and

(4) Makes a number of technical updates based on information that has developed since the last update to these lists.

Candiru

The Department performed a risk assessment for candiru and determined that it is a lower risk invasive species than originally feared. Candiru is native to the Amazon and Orinoco River Basins in South America and is not currently found in the United States. Because it is a tropical species, it is not likely to be able to survive winters in Maryland, or establish a population, in the event that it were to be accidentally released into State waters. It is also not a common fish in the aquarium trade as it is a blood parasite.

Chinese Pond Mussel

It is necessary to list the Chinese pond mussel as a species which a person may not import, transport, purchase, possess, propagate, sell, or release into State waters based on the results of the Department's risk assessment. The Chinese pond mussel is a large freshwater unionid mussel native to eastern Asia. It is currently found throughout Europe, as well as in Indonesia, Central America, and North America. It is a filter-feeder with a larval stage (glochidia) that parasitizes fishes. As a result, it competes with native unionid mussels for space, nutrients, and host fish. It has been observed to be a successful competitor that may compose up to 90 percent of the total unionid biomass in systems where it has been established, completely replacing some native species. The Department's risk assessment indicated that the species had a high climate match score with Maryland. That score combined with the species' high fecundity and generally high tolerance of disturbance and pollution indicate that Chinese pond mussel could establish in Maryland if it were introduced. Its success as a competitor would be detrimental to stocks of native Maryland unionid mussels, many of which are already imperiled. Listing this species in the most restrictive category of nuisance species will hopefully deter this outcome.

Swamp Eels

It is necessary to expand the list of swamp eels to apply to the entire family of Synbranchidae, rather than the specific Asian swamp eel currently listed, because there are several species that are sold for human consumption in live food markets and circulated in the aquarium trade all of the same family. Swamp eels are primarily freshwater fishes distributed in tropical and subtropical regions of Asia, Australia, Africa, and Central and South America. There are no swamp eel species native to North America. Swamp eels are considered tropical to sub-tropical species that inhabit mostly freshwater slow-moving systems including ponds, swamps, and ephemeral wetlands. These eels are environmentally tolerant as a group. The two most commonly-traded species are known to tolerate low dissolved oxygen concentrations (as they are air breathers), a wide range of salinity (up to 16 ppt) and can survive freezing temperatures

and ice cover, meaning that it is likely they would be able to survive a Maryland winter and expand throughout the Chesapeake Bay watershed if given the opportunity. On the human health side, swamp eels are a common source of human gnathostomiasis (a parasitic infection) and have been observed to contain a high parasite load including nematodes, acanthocephalans, and digenean parasites. Although impacts to invaded areas outside of Maryland have been relatively minimal, swamp eels can attain large size (up to 1 meter in length) and prey on a variety of organisms, and it is possible that impacts have been underreported. The risk analysis that was run on the entire family determined that there is a high risk of invasiveness due to environmental and climate matching, indicating most of Maryland is suitable for establishment by these species.

Waterwheel

It is necessary to list waterwheel as a species which a person may not import, transport, purchase, possess, propagate, sell, or release into State waters based on the results of the Department's risk assessment. Waterwheel is a carnivorous, perennial, free-floating, rootless aquatic herbaceous plant, with a simple or sparsely branched stem possessing successive whorls of bristled, prey-catching leaves. It is native to Eurasia, Africa, and Australia, has been grown by carnivorous plant enthusiasts in outdoor ponds since the 1980s and was introduced/reported from the wild in the U.S. as early as 1999. Waterwheel has been found in Virginia and has shown highly invasive tendencies there. This species' primary method of reproduction is vegetative, with individual plants growing continuously in the right conditions and doubling in mass in as little as 12 days. It forms dormant buds called "turions" that sink to the bottom of the waterbody to overwinter, with new plants growing from these structures in the spring. Whole plants, plant fragments, or turions may be transported by birds, flowing water, or boats and other contaminated recreation equipment. If it becomes established, it may have a significant impact on invertebrate and zooplankton communities, with individual plants containing as many as 200 traps that have a capture efficiency of up to 40 percent. As such, waterwheel may compete with native aquatic carnivorous plants, and could reduce populations of rare aquatic invertebrates through predation, especially in sensitive aquatic habitats. Additionally, thick growth of waterwheel could shade out native aquatic macrophytes and may even clog waterways used for fishing, boating, and irrigation. If this species expands beyond its currently limited U.S. populations and continues to find the same levels of success, then it could prove itself to be a damaging aquatic invader. Listing it in the most restrictive category of nuisance species will hopefully deter this outcome.

Other Housekeeping Changes

It is necessary to make technical changes based on updated science on currently-listed species. Specifically, this action updates the scientific name of Alabama bass from "Micropterus hensalli" to "Micropterus henshalli"; removes the scientific name "Notropis lutrensis" from the listing for red shiner; updates the scientific name of rusty crayfish from "Orconectes rusticus" to "Faxonius rusticus"; updates the scientific name of virile crayfish from "Orconectes virilis" to "Faxonius virilis"; and includes "Trapa bispinosa" as a species of water chestnut. These changes reflect corrected spelling and update how these species are categorized.

Estimate of Economic Impact

The proposed action has no economic impact.

Economic Impact on Small Businesses

The proposed action has minimal or no economic impact on small businesses.

Impact on Individuals with Disabilities

The proposed action has no impact on individuals with disabilities.

Opportunity for Public Comment

Comments may be sent to Regulations for Nuisance Species List , Regulatory Staff, Department of Natural Resources Fishing and Boating Services, 580 Taylor Avenue, E-4, Annapolis, MD 21401, or call 410-260-8300, or email to fishereispubliccomment.dnr@maryland.gov or complete the comment form at https://dnr.maryland.gov/fisheries/Pages/regulations/changes.aspx. Comments will be accepted through November 30, 2026. A public hearing has not been scheduled.

.04 Classification of Nonnative Aquatic Organisms.

A. A person may not import, transport, purchase, possess, propagate, sell, or release into State waters the following nonnative aquatic organisms:

(1) Fish species:

(a) Alabama bass (Micropterus [hensalli] *henshalli*);

(b) (text unchanged)

[(c) Asian swamp eel (Monoterus albus);**]**

[(d)**]** *(c)*—**[**(e)**]** *(d)* (text unchanged)

[(f) Candiru (Vandellia cirrhosa);**]**

[(g)**]** *(e)* (text unchanged)

(f) Chinese pond mussel (Sinanodonta woodiana);

[(h)**]** *(g)*—**[**(l)**]** *(k)* (text unchanged)

[(m)**]** *(l)* Red shiner (**[**Notropis lutrensis,**]** Cyprinella lutrensis);

[(n)**]** *(m)*—**[**(o)**]** *(n)* (text unchanged)

[(p)**]** *(o)* Rusty crayfish (**[**Orconectes**]** *Faxonius* rusticus);

[(q)**]** *(p)*—**[**(r)**]** *(q)* (text unchanged)

(r) Swamp eel (Synbranchidae sp.);

(s)—(u) (text unchanged)

(2) Aquatic plant species:

(a) Giant salvinia (Salvinia molesta); **[**and**]**

(b) Green Caulerpa seaweed (Caulerpa taxifolia)**[**.**]** *; and*

(c) Waterwheel (Aldrovanda vesiculosa).

B. A person may not transport the following nonnative aquatic organisms:

(1) Fish species:

(a)—(g) (text unchanged)

(h) Virile crayfish (**[**Orconectes**]** *Faxonius* virilis); and

(2) Aquatic plant species:

(a)—(c) (text unchanged)

(d) Water chestnut (Trapa natans; *Trapa bispinosa*).

C.—D. (text unchanged)

JOSH KURTZ
Secretary of Natural Resources

08.02.19 Nuisance and Prohibited Species

Authority: Natural Resources Article. §4-205.1, Annotated Code of Maryland

Notice of Proposed Action

[26-144-P]

The Secretary of Natural Resources proposes to adopt new Regulation **.08** under **COMAR 08.02.19 Nuisance and Prohibited Species**.

Statement of Purpose

The purpose of this action is to establish regulations that allow the Department to conduct pilot projects for nuisance organisms. Natural Resources Article, §4-201.5, Annotated Code of Maryland, states that the Secretary may adopt regulations to conduct pilot projects to demonstrate and evaluate new approaches for the management and control of nuisance organisms. The proposed action establishes the rules for both the Department and participants.

The first pilot project that the Department intends to conduct is to allow a commercial licensee to sell invasive fish species (e.g., blue