2014 CONSERVATION POLICY RESOLUTION

Conservation Policy Resolution and Sponsoring Affiliate Commentary
Adopted by the National Wildlife Federation
78th Annual Meeting
Baltimore, MD
May 1-3, 2014

RESOLUTION
Mitigate Negative Impacts of Lionfish on Marine Fisheries and Ecosystems

WHEREAS, the National Wildlife Federation is fully committed to protecting fish and wildlife and their habitats; and

WHEREAS, two visually identical species of lionfish (*Pterois miles* and *P. volitans*) were introduced into the Atlantic via the U.S. aquarium trade beginning in the 1980s; and as of 2014, the lionfish invaded range is North Carolina to South America including the Gulf of Mexico and the Caribbean Sea; and

WHEREAS, lionfish effectiveness as invasive species derives in part from their wide temperature tolerance, ability to inhabit all marine habitat types and depths from shoreline to over 1,000 feet, rapid maturation with sexual maturity in less than a year with reproduction occurring throughout the year about every four days with a single female lionfish capable of spawning over two million eggs/year; and lionfish eggs held together in a gelatinous mass of eggs that are dispersed at the ocean's surface by currents; and

WHEREAS, lionfish may live decades and reach sizes exceeding 19 inches possess venomous spines capable of deterring predators and inflicting mild to serious stings and reactions in humans; and

WHEREAS, lionfish can reach high population densities, are generalist carnivores that consume over 70 species of fish and many invertebrate species, with dense lionfish populations capable of consuming more than 460,000 prey fish/acre/year; and

WHEREAS, lionfish prey on commercially, recreationally, and ecologically important species, on heavily invaded sites having reduced their fish prey populations by up to 90 percent, and lionfish are susceptible to very few parasites compared to native species; and

WHEREAS, lionfish are edible and considered a delicacy, and local removal efforts that are sustained have proven to significantly reduce lionfish densities; and

WHEREAS, lionfish pose a trans-boundary threat, therefore, interstate and international communication and cooperation is vital to their control;

NOW, THEREFORE, BE IT RESOLVED that the National Wildlife Federation at its annual meeting assembled May 1-3 2014, in Baltimore, Maryland, supports the development and implementation of national, regional, state and territorial lionfish response and management plans that address the potential ecological and economic threat posed by invasive lionfish with specific and measureable strategies for education and outreach, removal, research and monitoring, marketing and communications; and

BE IT FURTHER RESOLVED that the National Wildlife Federation calls upon the President, Congress, federal and state agencies as well as Regional Fishery Management Councils to implement policies, management plans, and safeguards that: improve effectiveness of coordinated removal; and

BE IT FURTHER RESOLVED that the National Wildlife Federation calls upon federal and state agencies to improve our understanding of lionfish impacts, effectiveness of removal, and viability of commercial sale; and

BE IT FURTHER RESOLVED that the National Wildlife Federation calls upon federal and state agencies to support research that may lead to effective lionfish control; and

BE IT FURTHER RESOLVED that the National Wildlife Federation calls upon federal and state agencies to ban the importation of live lionfish; and

BE IT FURTHER RESOLVED that the National Wildlife Federation calls upon federal and state agencies to support the marketing of lionfish as a means to incentivize control; and

BE IT FURTHER RESOLVED that the National Wildlife Federation calls upon federal and state agencies to promote communication and coordination between groups and the public; and support a strong education and outreach program which builds community support, aids development of a network of partners, and advances awareness and understanding of the lionfish invasion impacts.

Affiliate Commentary

The Indo-Pacific lionfish (*Pterois miles* and *P. volitans*) has rapidly invaded the western Atlantic, Caribbean Sea and Gulf of Mexico (Ref. Lionfish Quickfacts, REEF,-NOAA-USGS-Simon Fraser University, October 25, 2011). It is a voracious predator that has the potential to reduce native fish populations, adversely affecting local fisheries and ecosystems. Lionfish have high reproductive rates and have the potential to markedly reduce prey species biomass, out-compete economically important native predators and damage the ecological integrity of marine systems. The lionfish invasion may exacerbate the effects of existing anthropogenic stressors, including coral bleaching, climate change, ocean acidification, overfishing, sedimentation and

pollution. Where ciguatera fish poisoning is prevalent, caution should be taken regarding the consumption of lionfish.

Lionfish have already been shown to reduce prey species abundance and alter coral reef community structure, and models predict complex, indirect impacts on food webs. There is concern that the lionfish will impact native fish, especially commercially and recreationally important snappers and groupers, by directly preying on the juveniles of these species and drastically reducing populations of the fish that they feed upon.

As the abundance of lionfish has increased and range of lionfish throughout the Atlantic, Gulf of Mexico and Caribbean has grown, recognition that lionfish pose a serious threat to marine ecosystems and commercial fisheries has spurred the development of lionfish management plans across the region. Given the trans-boundary ecological and socioeconomic impacts of lionfish, the need for regional coordination and interstate and international cooperation is widely recognized.

We call upon the National Wildlife Federation to pass the attached resolution in support of the coordinated efforts of state, territorial, international initiatives to control and mitigate negative environmental and economic impacts from this marine invasive species. Approaches include regularly examining the local and regional scientific results with observational data, concentrating the collection of removal and sighting data into one shared database, supporting research into lionfish trap design that minimizes by-catch, pheromone and other lionfish attractants, biotic resistance including mariculture and training of native predators to consume lionfish, and other research that may lead to effective lionfish control.

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