

PREVENTING THE SPREAD OF ZEBRA AND QUAGGA MUSSELS: THE ROLE OF THE LACEY ACT

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Following the discovery of the first population of dreissenid mussels in the western United States in 2007, significant federal, state, tribal, and local government resources have been directed toward public outreach campaigns, watercraft inspection programs, and legal reform to prevent the spread of this invasive species. This Article explores the limits of the Lacey Act as a tool for preventing the spread of invasive zebra and quagga mussels. The Lacey Act contains two key provisions. Title 16 prohibits wildlife trafficking and elevates the violation of state, tribal, or foreign wildlife laws to federal offenses. Title 18 prohibits the importation and interstate transportation of listed injurious species, including zebra mussels. This Article provides an overview of Title 16 and 18 and discusses the federal enforcement challenges associated with invasive mussel cases. The Article concludes with a discussion of the states' primary enforcement role and proposals for Lacey Act reform.

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INTRODUCTION

Following the discovery of the first population of dreissenid mussels in the western United States in 2007, significant federal, state, tribal, and local government resources have been directed toward public outreach campaigns, watercraft inspection programs, and legal reform to prevent the spread of this invasive species. The primary pathways for the spread of zebra and quagga mussels throughout the Western region are the overland transport of trailered recreational boats and water supply vectors. In recent years, several states in the region have enacted new laws addressing the dreissenid mussel threat and authorizing statewide watercraft inspection programs. These state laws, however, are not consistent across the region, and enforcement authorities vary. As such, attention often turns to the federal government and the Lacey Act to provide enforcement support for the state aquatic invasive species programs, especially when mussel-infested water or fouled watercraft cross state lines.

The Lacey Act is one of the oldest wildlife protection statutes in the United States. It was enacted in 1900 to help states protect their native wildlife by prohibiting the interstate transport of wildlife killed or taken in violation of state law.¹ Congress passed significant amendments to the Lacey Act in 1981 and 2008, which broadened the definition of wildlife, extended protections to plants, and increased the penalties for violations. The U.S. Department of Agriculture originally administered the Lacey Act, but today that authority lies with the U.S. Fish and Wildlife Service (FWS) within the Department of the Interior.

1. In the late 1800s, many states struggled to control the excessive hunting of birds for their feathers, as it was quite easy for poachers to evade prosecution by shipping wildlife to other states. In addition, the Lacey Act prohibited the importation of mongooses, fruit bats, English sparrows, and starlings—nonnative species that caused considerable harm to native bird populations and agricultural crops.

This Article explores the limits of the Lacey Act as a tool for preventing the spread of invasive zebra and quagga mussels. The Lacey Act contains two key provisions, commonly referred to by reference to the U.S. Code title in which each is found, Title 16 and Title 18. Part I of the Article describes Title 16, which prohibits wildlife trafficking and elevates the violation of state, tribal, or foreign wildlife laws to federal offenses. Title 16 also prohibits the submission of false records. Part II highlights the enforcement challenges associated with Title 16 through a watercraft transport case study. Part III focuses on Title 18, which prohibits the importation and interstate transportation of listed injurious species. Zebra mussels are listed as “injurious” under the Lacey Act, but quagga mussels are not. This distinction has significant enforcement implications, as discussed in Part IV through a water supply project case study. The Article concludes with a discussion of the states’ primary enforcement role and proposals for Lacey Act reform.

I. TITLE 16

A. *Wildlife Trafficking Offense*

Title 16 makes it unlawful for any person “to import, export, transport, sell, receive, acquire, or purchase any fish or wildlife or plant taken, possessed, transported, or sold” in violation of any federal, tribal, state, or foreign law.² There are two steps, or layers, to a Title 16 trafficking violation. First, there must be an underlying or “predicate” violation of federal, tribal, state, or foreign wildlife-related law.³ If a predicate violation exists, the affected wildlife can be thought of as “tainted.” Second, a person must “import, export, transport, sell, receive, acquire, or purchase” the tainted wildlife or attempt to do one of those things. Therefore, with respect to Title 16, the Lacey Act is only as strong as the underlying laws upon which the violation is based.

It is important to note that a single action cannot give rise to a Lacey Act violation. For instance, the act of killing a game bird out of season cannot count as both “taking” the bird in violation of underlying law and also “acquiring” it in violation of the Lacey Act.⁴ The government must prove that two separate violations occurred. “The bird must be taken before acquiring it violates the Lacey Act.”⁵ In other words, there must be an underlying violation followed by a separate, consummating act that happens at a different time. Additionally, the person who commits the second violation does not necessarily have to be the same person who committed the triggering violation, although it can be. “Culpability attaches to anyone who imports, exports, transports, receives, acquires, or purchases the

2. 16 U.S.C. § 3372(a) (2012).

3. *See id.* § 3371(d) (“The terms ‘law,’ ‘treaty,’ ‘regulation’ and ‘Indian tribal law’ mean laws, treaties, regulations or Indian tribal laws which regulate the taking, possession, importation, exportation, transportation, or sale of fish or wildlife or plants.”).

4. *United States v. Carpenter*, 933 F.2d 748, 750 (9th Cir. 1991).

5. *Id.*

wildlife and who knows, or in exercise of due care should know, that it was illegally taken, possessed, transported, or sold.”⁶

In the quagga mussel context, a Lacey Act violation might arise as follows. A boater, leaving a Utah water body infested with quagga mussels, fails to properly clean his boat and quagga mussels remain attached to the hull. In Utah, as in many Western states, it is unlawful for a person to possess a dreissenid mussel.⁷ Possession means “actual or constructive possession.”⁸ Utah courts define constructive possession as “requiring one to have power and intent to exercise control over an item.”⁹ Because the boat owner has control over the boat, he arguably has control over anything attached to the boat. The owner, therefore, is in possession of quagga mussels in violation of Utah law. This violation of state law could serve as an underlying, or predicate, offense for a Lacey Act prosecution.

This violation of state law, however, is not enough to violate the Lacey Act. In order to violate the Lacey Act in the trailered boat context, someone (the boat owner or a commercial hauler) would have to transport, or attempt to transport, the quagga-infested watercraft in interstate commerce (i.e., across the state lines). When the underlying law is state law, the overlying offense (e.g., import, transport, sale, purchase) must occur in interstate commerce.¹⁰ The Lacey Act defines “transport” as “to move, convey, carry, or ship by any means, or to deliver or receive for the purpose of movement, conveyance, carriage, or shipment.”¹¹ Commercial activity is not necessarily required for mussels to be transported in interstate commerce. Highways are considered “channels of commerce” and automobiles are “instrumentalities of commerce,” so trailering a boat across state lines would likely be considered interstate commerce.¹² Driving a boat from one state to another on the same body of water, such as on Bear Lake between Utah and Idaho or Lake Mead between Arizona and Nevada, would also be interstate transport. This interstate transportation of the mussels is the second, or overlying, offense required for a Lacey Act violation.

Although the majority of Lacey Act violations are based on state or foreign predicate laws, federal laws can also provide a basis for Lacey Act prosecutions. A key difference between a prosecution based on an underlying federal, as opposed to state, law is that an interstate commerce connection is not required.¹³ In other words, an individual may be prosecuted under the Lacey Act for a violation of a federal law even if the wildlife never crossed state lines. For example, if someone sold a white abalone, a snail protected by the Endangered Species Act (ESA), the individual may be prosecuted under the Lacey Act even

6. Robert S. Anderson, *The Lacey Act: America's Premier Weapon in the Fight Against Unlawful Wildlife Trafficking*, 16 PUB. LAND L. REV. 27, 61 (1995).

7. UTAH CODE ANN. § 23-27-201(1)(a) (West 2012).

8. *Id.* § 23-13-2(30).

9. State ex rel. M.B. v. Utah, 198 P.3d 1007, 1015 (Utah 2008).

10. 16 U.S.C. § 3372(a)(2) (2012).

11. *Id.* § 3371(k).

12. See generally United States v. Ballinger, 395 F.3d 1218, 1225-26 (11th Cir. 2005).

13. See 16 U.S.C. § 3372(a)(1).

if the wildlife never crossed state lines. The harvest (“take”) of the white abalone would be a violation of the ESA, and the sale would be a trafficking offense under the Lacey Act.

No federal regulations specifically address the movement of dreissenid mussels on federal lands. There is a federal regulation prohibiting the release of plants and animals into national wildlife refuges,¹⁴ but it is limited in geographic scope and does not address movement of species from wildlife refuges. Several federal agencies in the region, however, imposed restrictions on the movement of boats through use permits and emergency orders. For example, the U.S. Forest Service prohibits motorized or trailered watercraft at certain boat launch sites within the Arapaho National Recreation Area to prevent further mussel infestations.¹⁵ Likewise, the National Park Service imposes mandatory boat inspections prior to launching on Lake Powell in the Glen Canyon National Recreation Area.¹⁶

Because many of these rules have not been adopted through formal rulemaking and published in the Code of Federal Regulations (C.F.R.), Lacey Act prosecutions based on these or similar use restrictions are unlikely. The underlying law upon which a Lacey Act violation is based must be (1) a formal law or regulation and (2) wildlife-related.¹⁷ Although the NPS and U.S. Forest Service impose use restrictions to protect the environment and wildlife, the agencies are imposing these use restrictions through their general statutory and regulatory authority to issue orders and guidelines as necessary to manage federal lands.¹⁸ The use restrictions are not codified in the C.F.R., as the agencies have not issued formal regulations to address the dreissenid mussel problem.

If the agencies were to impose use restrictions through a formal regulation, the regulation would arguably be wildlife-related. Congress, for instance, in establishing the National Parks Service, stated that the purpose of parks is “to conserve the scenery and the natural and historic objects and the wild life [sic] therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”¹⁹ Therefore, the National Park Service Organic Act is wildlife-related, at least in part. Any regulations promulgated to prevent the spread of zebra and quagga mussels pursuant to the agency’s authority under the Organic Act should also be classified as such. No court cases to date, however, have defined “wildlife-related” with any degree of specificity. It is therefore unknown whether the National Park Service Organic Act

14. 50 C.F.R. § 27.52 (2013). The U.S. Fish and Wildlife Service regulations state that “[p]lants and animals or their parts taken elsewhere shall not be introduced, liberated, or placed on any national wildlife refuge.”

15. U.S. FOREST SERV., ORDER NO. 10-08-2009-02, ORDER – NATIONAL FOREST OCCUPANCY AND USE RESTRICTIONS – ARAPAHO AND ROOSEVELT NATIONAL FORESTS AND PAWNEE NATIONAL GRASSLAND (2009), *available at* http://fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5163566.pdf.

16. NAT’L PARK SERV., SUPERINTENDENT’S COMPENDIUM: GLEN CANYON NATIONAL RECREATION AREA AND RAINBOW BRIDGE NATIONAL MONUMENT 3 (2012), *available at* <http://www.nps.gov/glca/parkmgmt/upload/2012-GLCA-Superintendent-s-Compendium.pdf>.

17. *See* 16 U.S.C. § 3371(d) (2012).

18. *See* 36 C.F.R. §§ 1.5 (National Park Service), 261.58 (U.S. Forest Service) (2013).

19. 16 U.S.C. § 1 (2012).

and a regulation issued pursuant to the Act's authority would be sufficiently "wildlife-related" to serve as a predicate law for a Lacey Act violation.

Fortunately, the federal government does not need the Lacey Act to enforce use restrictions on federal lands. If a boater launches a watercraft in a restricted area, refuses to submit to an inspection, or violates a condition of a permit, the National Park Service, Bureau of Land Management, U.S. Forest Service, and other management agencies can take legal action to directly enforce their orders and rules. In 2009, for example, a Nevada resident was fined \$2,500 for refusing to submit to a mandatory boat inspection prior to launching on Lake Powell in Glen Canyon National Recreation Area.²⁰

B. Wildlife Trafficking Penalties

As mentioned, the Lacey Act makes it unlawful to transport in interstate commerce quagga mussels that have been possessed in violation of state law or regulation. If the person transporting the mussels, "in the exercise of due care," should have known that the mussels were possessed in violation of state law or regulation, the government may impose a civil penalty of not more than \$10,000.²¹ When the violation involves only the transportation of wildlife with a market value of less than \$350, civil penalties may not exceed the maximum penalty provided by state law or \$10,000, whichever is less.²² This provision can result in significantly lower maximum fines. Violations of the Utah Aquatic Invasive Species Interdiction Act, for example, are considered Class B misdemeanors punishable by the imposition of a maximum fine of \$1,000.²³ In determining the amount of the penalty to assess, the government "shall take into account the nature, circumstances, extent, and gravity of the prohibited act committed, and with respect to the violator, the degree of culpability, ability to pay, and other matters as justice may require."²⁴

The government may also impose criminal penalties for violations of the Lacey Act. Unlike with civil penalties, however, a mens rea element is required to impose criminal penalties.²⁵ Mens rea is "the state of mind that the prosecution, to secure a conviction, must prove that a defendant had when committing a crime."²⁶ The mens rea for Lacey Act criminal penalties is "knowingly." "A defendant acts knowingly if he or she is aware of the

20. Press Release, Nat'l Park Serv., Nevada Man Found Guilty in Quagga Mussel Case, (Oct. 30, 2009), available at <http://www.nps.gov/glca/parknews/nevada-man-found-guilty-in-quagga-mussel-case.htm>. See also Judgment, United States v. Ward, No. 2:09-po-00695-RTB (D. Utah Oct. 22, 2009), ECF No. 9.

21. 16 U.S.C. § 3373(a)(1) (2012).

22. *Id.*

23. UTAH CODE ANN. §§ 23-13-11(1), 76-3-301(1)(d) (West 2012).

24. 16 U.S.C. § 3373(a)(6).

25. *Id.* § 3373(d)(1). See also United States v. Fejes, 232 F.3d 696, 702 n.5 (9th Cir. 2000).

26. BLACK'S LAW DICTIONARY 1075 (9th ed. 2009).

conduct and does not act through ignorance, mistake or accident.”²⁷ Given the extensive public outreach campaigns in the West and signage at many public access points, it seems unlikely that someone could claim they did not know that improperly handled boats could move mussels. However, some infested waters have minimal signage, which provides an opening for a defendant to raise lack of knowledge as a possible defense, as prosecutors must prove that the defendant knowingly transported the mussels.

Additionally, the Lacey Act provides for both felony and misdemeanor offenses, although it is unlikely that a felony charge would be sustained in the movement of trailered boats. A felony can be imposed only if the defendant either (1) knowingly imports or exports tainted wildlife or (2) knowingly engages in conduct involving the sale or purchase of tainted wildlife with a market value in excess of \$350.²⁸ With respect to the first option, moving a boat across state lines with mussels attached could be considered “import,” as the Lacey Act defines that term broadly.²⁹ However, as discussed in more detail below, establishing that a defendant did so “knowingly” can be quite difficult. Signage along highways near state lines, in addition to existing signage at infested waters, might provide additional notice to boaters that transportation of non-decontaminated boats across state lines may be illegal (depending on the laws of the states through which the mussels are transported), but prosecutors would still need to prove that the defendant saw and read the signs. As to the second option, invasive species like quagga mussels have no commercial (market) value. In addition, a felony requires proof that the defendant knew the wildlife was taken, possessed, transported, or sold in violation of law.³⁰ Felony trafficking violations are punishable by a maximum fine of \$20,000, five years in prison, or both, and property used to aid the offense may be subject to forfeiture.³¹

For a misdemeanor offense, the elements are slightly different. First, the defendant must “knowingly” engage in conduct prohibited by § 3372(a) of the Lacey Act (e.g., possession of quagga mussels). Second, the government must prove that, “in the exercise of due care,” the defendant should have known that the wildlife was taken, possessed, transported, or sold in violation of law.³² “Due care means that degree of care which a reasonably prudent person would exercise under the same or similar circumstances.”³³

27. 9TH CIR. JURY INSTRUCTIONS COMM., MANUAL OF MODEL CRIMINAL JURY INSTRUCTIONS FOR THE DISTRICT COURTS OF THE NINTH CIRCUIT § 9.11 (2010 ed.), available at [http://www3.ce9.uscourts.gov/web/sdocuments.nsf/d4f8f49f20ea8ab3882564bb000fc20d/\\$FILE/12_2012_Final_Criminal.pdf](http://www3.ce9.uscourts.gov/web/sdocuments.nsf/d4f8f49f20ea8ab3882564bb000fc20d/$FILE/12_2012_Final_Criminal.pdf).

28. 16 U.S.C. § 3373(d)(1).

29. *Id.* § 3371(b) (“The term ‘import’ means to land on, bring into, or introduce into, any place subject to the jurisdiction of the United States, whether or not such landing, bringing, or introduction constitutes an importation within the meaning of the customs laws of the United States.”).

30. *Id.* See also *Fejes*, 232 F.3d at 703.

31. 16 U.S.C. §§ 3373(d)(1), 3374(a).

32. *Id.* § 3373(d)(2).

33. 9TH CIR. JURY INSTRUCTIONS COMM., *supra* note 27, at § 9.13.

Misdemeanor violations are punishable by a maximum fine of \$10,000, one year in prison, or both.³⁴

C. *False Labeling Offenses*

In addition to wildlife trafficking offenses, the Lacey Act also incorporates false labeling offenses found in 16 U.S.C. § 3372(d). Section 3372(d) makes it

unlawful for any person to make or submit any false record, account, or label for, or any false identification of, any fish, wildlife, or plant which has been, or is intended to be (1) imported, exported, transported, sold, purchased, or received from any foreign country; or (2) transported in interstate or foreign commerce.³⁵

Two elements must therefore be established. First, there must be a falsification of a record, account, or label. Second, the fish, wildlife, or plant that is the subject of the false record must be transported, or intended to be transported, in interstate commerce.

The false labeling provisions may be used in conjunction with or in lieu of related wildlife trafficking charges. Arizona, for example, requires the owner, operator, or transporter of long-term-use boats to complete and submit an Aquatic Invasive Species Boat Inspection Report (AISBIR) to the Arizona Game and Fish Department before leaving listed waters.³⁶ A person violates the Lacey Act if the person knowingly fills out this report with false information and then transports the boat and mussels in interstate commerce. Proving false reporting on a watercraft inspection report may be easier than establishing that someone knowingly transported quagga mussels in violation of state law. This may be especially true in states that only prohibit the transport of live mussels, as it can be very difficult to establish whether a mussel was live or dead at the time of transport.³⁷

The penalties for violations of the false labeling provisions are similar, but not identical, to the wildlife trafficking penalties. The primary difference is that the mens rea for both civil and criminal penalties under the false labeling provisions is “knowingly.”³⁸ That is, the defendant must have knowingly submitted a false report. Both civil and criminal penalties are available for false reporting. As with wildlife trafficking offenses, a civil penalty of not more than \$10,000 may be imposed for false labeling violations.³⁹ The maximum

34. 16 U.S.C. § 3373(d)(2).

35. *Id.* § 3372(d).

36. Notice of Public Information – Director’s Order 2 – R07/12 – Aquatic Invasive Species – Designation of Waters or Locations Where Listed Aquatic Invasive Species Are Present, 18 Ariz. Admin. Reg. 1757 (Fish & Game Dep’t July 20, 2012) [hereinafter Arizona AIS Locations], *available at* http://www.azgfd.gov/h_f/aquatic_invasive_species.shtml.

37. For more information on the issue of viability, see Terra Bowling, *Defining and Assessing Viability: Legal and Enforcement Challenges*, 3 ARIZ. J. ENVTL. L. & POL’Y (forthcoming Spring 2013).

38. *See* 16 U.S.C. § 3373(a)(1), (d)(3).

39. *Id.* § 3373(a)(1). If the violation involves only the transportation of wildlife with a market value of less than \$350, the penalty may not exceed the maximum penalty provided by the underlying law or \$10,000, whichever is less.

criminal penalty for a violation is a \$10,000 fine, one year imprisonment, or both.⁴⁰ However, if the violation involves either the (1) import or export of fish, wildlife, or plants, or (2) the sale or purchase of fish, wildlife, or plants with a market value greater than \$350, harsher penalties may be imposed: a \$20,000 fine, five years' imprisonment, or both.⁴¹

II. TITLE 16 ENFORCEMENT CHALLENGES

A. *Trailerred Boat Case Study*

Title 16 enforcement cases involve complexities best illustrated by considering a hypothetical situation involving possible trafficking and false-labeling offenses.⁴² The owner of a houseboat, moored in Lake Mead, Nevada, for twenty years, recently sold it to a buyer in Oregon. The buyer contracted with a commercial hauler to transport the houseboat from Nevada to Oregon. While en route in Utah, wildlife enforcement officers stop the houseboat based on a tip from a National Park Service employee who recognized it as a Lake Mead long-term-use boat. The commercial hauler falsely claims he inspected the houseboat upon departure from Lake Mead and that it was free of quagga mussels. He even filed an Aquatic Invasive Species Boat Inspection Report with the Arizona Game and Fish Department certifying that the vessel was quagga mussel-free—a violation of state law. During the inspection, quagga mussels are found attached to the hull and propeller. The inspectors immediately decontaminate the houseboat by spraying the exterior and flushing the water systems with 140°F water. The commercial hauler is allowed to continue its journey and the houseboat is delivered to the owner in Oregon.

Has the commercial hauler violated the Lacey Act's wildlife trafficking provisions? First, there must be a violation of state law. The houseboat began its journey in Nevada. Nevada law prohibits “the importation, transportation, or possession of . . . *live*” zebra and quagga mussels.⁴³ Because the Nevada law only applies to “live” mussels, prosecutors would need evidence that the mussels attached to the houseboat were alive at the time of the inspection. Unless the inspectors collected such evidence through on-scene or laboratory testing prior to decontamination, there would be no proof that the houseboat was transporting live mussels. Instead, the houseboat may have been transporting dead mussels, which is not against Nevada law. Depending on the amount of time the houseboat has been out of the water, inspectors might be able to draw inferences based on air temperature and humidity about whether the mussels were alive by utilizing an accepted tool such as the

40. 16 U.S.C. § 3372(d)(3)(B).

41. 16 U.S.C. § 3373(d)(3)(A).

42. This hypothetical is drawn from Bryan Landry, Special Agent, U.S. Fish & Wildlife Serv., Lacey Act – And Interactions with State Laws, Presentation to Legal and Regulatory Efforts to Minimize Expansion of Invasive Mussels Through Watercraft Movements: A Co-learning Workshop (Aug. 22, 2012), available at <http://seagrant.oregonstate.edu/invasive-species/2012-boat-mussels-law-workshop/presentations>.

43. NEV. ADMIN. CODE § 503.110(1)(g)(2) (2012) (emphasis added).

100th Meridian Drying Time Estimator.⁴⁴ Without evidence proving that the mussels were alive, there would be no way to establish a predicate violation of Nevada law.

What about Utah? As mentioned earlier, it is unlawful for a person to “possess, import, export, ship, or transport a *Dreissena* mussel.”⁴⁵ Furthermore, Utah law requires boaters, upon leaving infested waters such as Lake Mead, to immediately inspect the interior and exterior of the boat for the presence of invasive mussels and drain all water from equipment, including water in bilges, livewells, and motors.⁴⁶ “If all water in the [boat] is drained and the [self-inspection] reveals the [boat is] free from mussels or shelled organisms, fish, plants and mud, the [boat] may be transported in or through the state directly from the take out site to the location where it will be: (a) professionally decontaminated; or (b) stored and self-decontaminated.”⁴⁷ Self-decontamination refers to removal of all plants, fish, mussels, and mud; draining of all water; and drying the boat and equipment for an extended period of time.⁴⁸

Given its structure, it may be hard for a prosecutor to prove that this commercial hauler possessed or transported mussels in violation of Utah law. First, the commercial hauler claims he inspected the houseboat upon leaving Lake Mead. If he is telling the truth and the self-inspection revealed no mussels, then the commercial hauler is permitted to transport the vessel through the state to the location where it will be decontaminated. The boat owner, for instance, may have been planning to store the boat on dry land for several months, which arguably would qualify as “self-decontamination.” To establish a violation of Utah law, prosecutors would have the incredibly difficult task of proving either (1) the commercial hauler is lying about conducting the self-inspection or (2) the self-inspection was faulty. If the houseboat’s hull and propeller were heavily encrusted with mussels, the commercial hauler’s claim that he conducted a good-faith inspection is likely to fail. However, mussels are small and sometimes difficult to spot even by trained inspectors. The presence of a few mussels does not necessarily mean the hauler failed to conduct a self-inspection.

If a prosecutor can establish that the commercial hauler failed to inspect the vessel or drain the water prior to transporting the vessel, she has sufficiently proven a violation of predicate state law. In this case, the hauler is both “possessing” and “transporting” the dead mussels in violation of Utah law. But the hauler may still not have violated the Lacey Act because there has been no second, consummating act satisfying the Lacey Act “two-step” requirement. Although the hauler is “in possession” of the mussels in violation of state law, the houseboat was stopped and inspected in Utah. There was no subsequent interstate transport of mussels possessed in violation of Utah law.

44. *Drying Time Estimator for Zebra/Quagga-Mussel Contaminated Boats*, 100TH MERIDIAN INITIATIVE, <http://www.100thmeridian.org/Emersion.asp> (last visited Jan. 10, 2013).

45. UTAH CODE ANN. § 23-27-201(1)(a) (West 2012).

46. UTAH ADMIN. CODE r. 657-60-5(1) (2012).

47. *Id.* r. 657-60-5(2).

48. *Id.* r. 657-60-2(2)(b)(i).

Although a prosecution based on a wildlife trafficking offense may be hard to pursue in this hypothetical situation, a false labeling prosecution may be possible. For instance, Arizona law requires owners, operators, and transporters of boats that have been in or on Lake Mead for more than five days to submit an AISBIR form to the Game and Fish Department before transporting the watercraft to other Arizona waters or out of state.⁴⁹ In the above hypothetical, the commercial hauler removed a houseboat that had been used on Lake Mead for more than twenty years. As required, the commercial hauler submitted an AISBIR form, calling for a close inspection of the vessel's hull, engine, outdrive, propeller shaft, and thrusters, and a certification as to the absence of visible mussels or vegetation.⁵⁰ There is some evidence that the form contained false information as quagga mussels were discovered attached to the hull and propeller. If interviews by law enforcement agents reveal that the boat was pulled directly from Lake Mead without the required self-inspection or decontamination and that the hauler failed to indicate the presence of mussels to save time and money, a false-labeling prosecution under the Lacey Act may be possible. Given that the hauler knowingly submitted a false record to Arizona wildlife enforcement in violation of Arizona law, and the invasive mussels were attached to a houseboat that was then transported across state lines to Utah, the elements required for a Lacey Act prosecution appear to be present.

B. Constitutional Challenges

In addition to the evidentiary challenges discussed above, state, tribal or foreign predicate laws must be able to withstand constitutional challenges during a Title 16 prosecution. As mentioned earlier, Title 16 is only as strong as the predicate law underlying it, and predicate state laws have been challenged for being too vague and for violating the dormant Commerce Clause. The Commerce Clause grants Congress the power “to regulate Commerce . . . among the several states.”⁵¹ In addition, the Commerce Clause “has long been understood to have a ‘negative’ aspect that denies the States the power unjustifiably to discriminate against or burden the interstate flow of articles of commerce.”⁵²

In *United States v. Gehl*, a caviar dealer prosecuted under the Lacey Act for selling salmon eggs taken illegally from New York waters argued that his prosecution was improper because the underlying state regulation violated the Commerce Clause.⁵³ The caviar dealer harvested salmon eggs from New York waters, processed the eggs into caviar at a New York facility, and then transported the caviar to another facility in Michigan before returning the caviar to wholesale and retail facilities in New York in order to obscure the caviar's State of New York origin.⁵⁴ The underlying New York regulation prohibited the sale of certain fish

49. Arizona AIS Locations, *supra* note 36.

50. ARIZ. GAME & FISH DEP'T, AQUATIC INVASIVE SPECIES BOAT INSPECTION REPORT (AISBIR) (2011), available at http://www.azgfd.gov/h_f/documents/VesselInspectForm_AISBR.pdf.

51. U.S. CONST. art. I, § 8, cl. 3.

52. *Or. Waste Sys., Inc. v. Dep't of Env'tl. Quality*, 511 U.S. 93, 98 (1994).

53. *United States v. Gehl*, 852 F. Supp. 1150, 1153 (N.D.N.Y. 1994).

54. *Id.* at 1152.

eggs harvested from the waters of Lake Ontario, its tributaries, and the St. Lawrence River.⁵⁵ The dealer claimed the New York law, by restricting the sale of certain fish, discriminated against and placed a burden on interstate commerce.⁵⁶ The Court disagreed, reasoning that although the regulation had the “practical effect” of discriminating against interstate commerce, the government demonstrated that the regulation served dual, legitimate local purposes of minimizing the risk to human health posed by consuming the caviar, and ensuring salmon population reserves.⁵⁷ The New York law did not violate the Commerce Clause, and as such, it could properly serve as predicate law for a Lacey Act violation.

State laws and regulations enacted to address the movement of invasive mussels should, if drafted properly, survive a dormant Commerce Clause challenge. Presently, eleven states in the region prohibit—in some form—the movement of quagga mussels: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.⁵⁸ Of those eleven states, five (Idaho, Washington, Oregon, Wyoming, and Montana) appear to be trying to stay ahead of quagga mussel infestations by passing laws without having any recorded established quagga mussel populations within their borders.⁵⁹ However, as stated by the U.S. Supreme Court in *Maine v. Taylor*, a preeminent invasive species case, “As long as a State does not needlessly obstruct interstate trade or attempt to place itself in a position of economic isolation, it retains broad regulatory authority to protect the health and safety of its citizens and the integrity of its natural resources.”⁶⁰

Although the Lacey Act provides a tool for states with quagga mussel laws to increase penalties for violations, the realities of federal prosecution policy make increased enforcement unlikely. States must reach out to federal agents for enforcement assistance, who then must try to persuade federal prosecutors to take on the case. Violations of state law are unlikely to rise to the top of prosecutors’ priority lists unless the violation is particularly egregious (e.g., multiple watercraft or repeat offender). Ultimately, Western states facing serious threats should develop comprehensive and consistent regulations among them that will prevent aquatic invasive species introductions through various pathways.

55. N.Y. COMP. CODES R. & REGS. tit. 6, § 37.1 (2013).

56. *Gehl*, 852 F. Supp. at 1154.

57. *Id.* at 1158. The court also determined that those local purposes could not be served as well by available nondiscriminatory means, the second step in a dormant Commerce Clause analysis. *Id.* at 1160.

58. See Compilation of Federal and State Laws and Regulations, Prepared by the Nat’l Sea Grant Law Ctr. for the Legal and Regulatory Efforts to Minimize Expansion of Invasive Mussels Through Watercraft Movements: A Co-learning Workshop (Aug. 22, 2012) (on file with authors); see also Stephanie Showalter Otts & Terra Bowling, *Legislative and Regulatory Efforts to Minimize Expansion of Invasive Mussels Through Watercraft Movements*, 3 ARIZ. J. ENVTL. L. & POL’Y 61, 71-83 (2013) (surveying Western states’ approaches to combating the spread of invasive dreissenid mussels).

59. *Point Map – Quagga Mussel*, U.S. GEOLOGICAL SURVEY, <http://nas2.er.usgs.gov/viewer/omap.aspx?SpeciesID=95> (last visited Aug. 9, 2012).

60. *Maine v. Taylor*, 477 U.S. 131, 151 (1986) (internal citations omitted).

III. TITLE 18

Title 18, often referred to as the “injurious species provision,” authorizes the Department of Interior, through the U.S. Fish and Wildlife Service (FWS), to prohibit the importation or transportation across state lines of species “deemed to be injurious or potentially injurious to the health and welfare of human beings, to the interest of forestry, agriculture, and horticulture, and to the welfare and survival of the wildlife or wildlife resources of the United States.”⁶¹ Congress may also designate species as injurious through legislation. Congress listed the zebra mussel, which became a serious problem in the late 1980s, as an injurious species by an amendment to the Lacey Act in 1990 in the Nonindigenous Aquatic Nuisance Prevention and Control Act.⁶² This method of listing, via federal statute, was an unusual approach; generally, the FWS lists species as injurious using the standard federal rulemaking process. Congress, however, desired more immediate action than FWS could undertake through rulemaking.

As the Lacey Act does not authorize any “fast-track” listing process, to list a species the FWS must follow the federal rulemaking processes outlined in the Administrative Procedure Act. Before it can issue a final rule, the agency is usually required to issue a proposed rule and solicit public comment. Additionally, the FWS must comply with several federal rulemaking requirements: it must complete an economic impact analysis of the rule, ensure compliance with any applicable executive orders, and may need to undertake an environmental assessment as required by the National Environmental Policy Act (NEPA). The federal rulemaking process generally takes at least two years, but for Lacey Act listings, the process averages almost five years.⁶³ This is a material factor to consider when evaluating whether an injurious listing will help to prevent the spread of any invasive species.

Title 18 is violated whenever a listed injurious species is either imported into the United States or transported across state lines without a permit issued by the FWS. The provision covers activity in all states, whether or not a state law addresses the particular injurious species. As such, Title 18 can help fill gaps and address inconsistencies or variations in state law. More importantly, violations of Title 18 are strict liability offenses.⁶⁴ The strict liability legal standard of the provision simplifies the enforcement process by not requiring a mens rea element for its violation. The FWS is granted sole authority to enforce Title 18, and has done so in a number of cases involving the importation of injurious species.⁶⁵

61. 50 C.F.R. §16.3 (2013).

62. 16 U.S.C. § 4701 (2012).

63. Andrea J. Fowler et al., *Failure of the Lacey Act to Protect US Ecosystems Against Animal Invasions*, 5 FRONTIERS ECOLOGY & ENV'T 353, 357 (2007).

64. 18 U.S.C. § 42(b) (2012) (“Whoever violates [Title 18] shall be fined . . . or imprisoned not more than six months, or both.”).

65. See *United States v. Bronx Reptiles, Inc.*, 217 F.3d 82 (2d Cir. 2000), and *United States v. Molt*, 615 F.2d 141 (3d Cir. 1980).

IV. TITLE 18 ENFORCEMENT CHALLENGES

Despite its effectiveness in providing more consistency among states, Title 18 presents its own enforcement challenges. In theory, the FWS can enforce Title 18 violations on its own without state law enforcement support. In practice, however, this has proven difficult to achieve. Generally, states maintain border checkpoints, rather than the federal government, and states often have more compelling reasons to control interstate boundaries than federal regulators (who are often more focused on international borders and trade). A lack of federal and state funding as well as other resource shortages act as obstacles to effective law enforcement.

In addition, the strict liability nature of Title 18 offenses raises challenging policy issues such as those surrounding the pumping of water from Lake Texoma. Lake Texoma is a manmade reservoir located along the Texas-Oklahoma border. To supply water to their 1.6 million customers, the North Texas Municipal Water District (NTMWD) and the Greater Texoma Utility Authority (GTUA) draw water from Lake Texoma and transport it to Lake Lavon through a 26-mile pipeline that discharges into Sister Grove Creek, a tributary of Lake Lavon.⁶⁶ When constructed in 1989, the Lake Texoma intake structure was located in Texas. Due to an allegedly erroneous change in the Texas-Oklahoma boundary in 2000, the intake structure is now located in Oklahoma.⁶⁷ Lake Texoma supplies 28 percent of the NTMWD's total water supply and the majority of the GTUA's water.⁶⁸

Zebra mussels were discovered in Lake Texoma in 2009.⁶⁹ In addition to the normal environmental and economic concerns surrounding this discovery, the NTMWD's pumping was predicted to spread zebra mussels by transferring the invasive species from the Red River Basin (Lake Texoma) to the Trinity River Basin (Lake Lavon).⁷⁰ When notified by the Texas Parks and Wildlife Department of the zebra mussels' presence, the NTMWD voluntarily suspended water transfers from Lake Texoma.⁷¹ In 2010, the FWS notified the NTMWD that the future use of the pump station would result in a violation of Title 18 of the Lacey Act because it would involve the movement of injurious species across state lines.⁷² The water transfer would also violate Texas laws prohibiting the importation of

66. N. TEX. MUN. WATER DIST., ZEBRA MUSSEL BRIEFING PAPER 1 (2012), available at https://ntmwd.com/downloads/invasives/invasives_zm_briefing_paper.pdf.

67. *Id.*

68. *North Texas Zebra Mussel Barrier Act of 2012: Hearing on H.R. 6007 Before the H. Comm. on Natural Res., Subcomm. on Fisheries, Wildlife, Oceans & Insular Affairs*, 112th Cong. 1 (2012) (statement of James M. Parks, Executive Director and General Manager, North Texas Municipal Water District), available at <http://naturalresources.house.gov/UploadedFiles/ParksTestimony07-19-12.pdf>.

69. H.R. REP. NO. 112-657, at 3 (2012).

70. *North Texas Zebra Mussel Barrier Act of 2012: Hearing on H.R. 6007 Before the H. Comm. on Natural Res., Subcomm. on Fisheries, Wildlife, Oceans & Insular Affairs*, 112th Cong. 3-4 (2012) (statement of Tom Melius, Acting Deputy Director for Policy, U.S. Fish and Wildlife Service), available at <http://naturalresources.house.gov/UploadedFiles/MeliusTestimony07-19-12.pdf>.

71. Parks Statement, *supra* note 68, at 1.

72. H.R. REP. NO. 112-657, at 3.

“harmful or potentially harmful exotic species,”⁷³ potentially triggering Title 16 wildlife trafficking violations as well.

Because abandoning Lake Texoma as a source of water is “not an option,” according to NTMWD Executive Director James Parks, the NTMWD and GTUA have been exploring available options to resume deliveries of Lake Texoma water to customers.⁷⁴ The option preferred by the NTMWD and GTUA is the North Texas Zebra Mussel Barrier Plan (Barrier Plan). The Barrier Plan involves extending the pipeline between Lake Texoma and Sister Grove Creek and delivering the Lake Texoma water directly to a water treatment facility operated by the NTMWD, where the water would be chemically and mechanically treated to kill and remove all mussels before being delivered into the municipal water system.⁷⁵ This \$300 million project would raise customer water rates by an estimated 15 percent.⁷⁶

Unfortunately for the NTMWD and GTUA, the construction of the new pipeline and implementation of the Barrier Plan would not absolve them of Lacey Act liability. Live zebra mussels will still be moving across state lines from Oklahoma to Texas. Title 18 applies to the *transport* of injurious species across state lines, not the *release* of species into the environment. Although the NTMWD’s commitment to environmental protection is commendable, its use of the pump station will still violate the Lacey Act. The NTMWD and GTUA have been engaged in negotiations with the U.S. Attorney for the Eastern District of Texas regarding a nonprosecution agreement for Lacey Act violations associated with the Lake Texoma pump station.⁷⁷ The U.S. Attorney, however, cannot bind future U.S. Attorneys in his office, the U.S. Department of Justice, or other federal agencies.

The NTMWD and GTUA are left with two options. First, the water intake and pump station could be moved from Oklahoma to Texas at an estimated cost of \$100 million,⁷⁸ or second, the NTMWD and GTUA could appeal to Congress for relief. If the pump station were to be located in Texas, there would be no Lacey Act violation because there would be no interstate transport of mussels. Given the investment to date in the Barrier Plan, the NTMWD and GTUA have understandably turned to the U.S. Congress for legislative relief. On September 10, 2012, the U.S. House of Representatives passed H.R. 6007, the North Texas Zebra Mussel Barrier Act of 2012. H.R. 6007 would exempt NTMWD and GTUA water transfers that use closed-conveyance systems from Lake

73. 31 TEX. ADMIN. CODE § 57.115 (2012).

74. Parks Statement, *supra* note 68, at 2.

75. *Id.* at 2-3.

76. *North Texas Zebra Mussel Barrier Act of 2012: Hearing on H.R. 6007 Before the H. Comm. on Natural Res., Subcomm. on Fisheries, Wildlife, Oceans & Insular Affairs*, 112th Cong. 2 (2012) (statement of Phil Dyer, Mayor, City of Plano, Texas), available at <http://naturalresources.house.gov/UploadedFiles/DyerTestimony07-19-12.pdf>.

77. Parks Statement, *supra* note 68, at 3.

78. *Id.* at 2.

Texoma to treatment facilities from liability under Titles 16 and 18. A similar bill was introduced in the Senate.⁷⁹

The FWS formally opposed the bill, cautioning Congress, “Legislative exemptions for specific interests affected by the Lacey Act are unprecedented and must be considered carefully, weighing the costs and benefits to U.S. citizens and water rate payers in the short and long term.”⁸⁰ The FWS believes that a non-legislative solution to this very unique situation is possible, and that “the precedent set by a legislative exemption to the Lacey Act would be very costly” to America’s natural resources, and economic and human health interests.⁸¹

If quagga mussels are listed as injurious under Title 18, water suppliers in the Southwest will face similar legal challenges. Quagga mussels are established in Lake Mead, Lake Havasu, and Mohave Lake on the lower Colorado River. Considering the maze of irrigation canals and water delivery systems in the region that draw from these waters, an injurious listing for quagga mussels could have significant economic and social ramifications if water transfers were halted.

CONCLUSION

Invasive species management and prevention embraces the cooperative federalism model of governance,⁸² with the federal government and the individual states working in partnership to address the problem. Primary responsibility for wildlife and environmental protection falls to state governments, with the federal government providing funding, policy guidance, and national coordination. Because invasive species cross state lines, federal laws and regulations are also necessary to deal with interstate issues and impacts.

A recent case illustrates the need for comprehensive and uniform state laws complemented by specific federal regulations to protect states from the further spread of quagga and zebra mussels. On October 26, 2012, officials at the Spokane Port of Entry in Washington State stopped a boat from Lake Michigan contaminated with hundreds of live quagga and zebra mussels.⁸³ The boat had not been decontaminated prior to transport and had only been out of the water for forty-eight hours.⁸⁴ The Washington Department of Fish and Wildlife had cited the hauler for a similar violation in 2010, and the hauler admitted during an interview that he was also stopped once in another state for hauling a contaminated boat.⁸⁵ For this particular hauler, at least, state laws and enforcement are not

79. North Texas Zebra Mussel Barrier Act of 2012, S. 3543, 112th Cong. (2012).

80. Melius Statement, *supra* note 70, at 5.

81. *Id.*

82. For a general discussion of cooperative federalism, see Adam Babich, *The Supremacy Clause, Cooperative Federalism, and the Full Federal Regulatory Purpose*, 64 ADMIN. L. REV. 1 (2012).

83. Mike Prager, *Officials Intercept Mussels at Border*, SPOKESMAN-REVIEW, Nov. 3, 2012, <http://www.spokesman.com/stories/2012/nov/03/officials-intercept-mussels-at-border/>.

84. WASH. DEP’T OF FISH & WILDLIFE, AIS RAPID RESPONSE FLYER (2012) (on file with author).

85. *Id.*; see also Prager, *supra* note 83.

serving as a deterrent. Successful prosecution under the Lacey Act would impose higher fines and penalties and could send a stronger message to commercial haulers and boaters regarding the importance of compliance with dreissenid mussel laws and policies.

The Lacey Act is an important component of this federal-state partnership, but it may not be the most effective tool in the toolbox. First, with respect to violations of Title 16, the Lacey Act is only as strong as the underlying state law and a number of evidentiary challenges may arise during a prosecution to prevent a conviction. Second, only federal prosecutors can file and pursue Lacey Act cases, leaving state officials at the mercy of underfunded and understaffed federal agencies and offices. Although a few Lacey Act Title 18 (injurious species) violations have been prosecuted by the FWS and the U.S. Department of Justice,⁸⁶ no high-profile cases have been filed to date involving either zebra or quagga mussels in the Western states.

In addition, for invasive species already in the United States, the injurious species list is not generally regarded as a proactive tool for preventing their spread because imported species are presumed to pose little or no risk until deemed otherwise by the FWS. This problem is often compounded by a substantial delay between the introduction of a species into the country and when the impacts of that invasive species are first noticed. Even when species are known to pose a threat, there is a high burden of proof required to justify injurious status and the injurious listing process itself can take years. By the time the rulemaking process is complete, it is often too late to prevent the spread across the country. As a result, the injurious species list omits a number of species that are generally believed to be injurious, such as quagga mussels, and until recently, Asian carps and pythons. Some argue that many of these obstacles would be eliminated if the FWS adopted a “clean list” approach, where only species designated as low risk could be imported.⁸⁷

Legislative efforts to reform the injurious species listing are underway on Capital Hill. On May 30, 2012, New York representative Louise Slaughter (R) introduced the Invasive Fish and Wildlife Prevention Act of 2012 (H.R. 5864).⁸⁸ Senator Kristen Gillibrand (D - NY) introduced a companion bill, S. 3606, on September 20, 2012.⁸⁹ These bills purport to “establish an improved regulatory process for injurious wildlife” by authorizing the FWS to develop regulations specifying criteria for injurious species listings and assessing the risks of those species being imported to the United States. H.R. 5864 also grants the FWS the authority to take immediate action to temporarily designate a nonnative wildlife species as injurious upon a determination that an emergency exists.⁹⁰

86. See, e.g., *Federal Invasive Species Enforcement*, U.S. FISH & WILDLIFE SERV., 1 <http://www.fws.gov/le/pdf/FWSOLEInvasiveSpeciesEnforcement.pdf> (last visited Jan. 15, 2013).

87. Karl Blankenship, *Report Calls for More United Effort to Halt Spread of Invasive Species*, 18 CHESAPEAKE BAY J. (Feb. 2008), available at http://www.bayjournal.com/article/report_calls_for_more_united_effort_to_halt_spread_of_invasive_species.

88. H.R. 5864, 112th Cong. (2012).

89. S. 3606, 112th Cong. (2012).

90. H.R. 5864 § 6(a).

Regardless of whether and to what extent congressional action is taken, the Western states will continue to be the primary enforcers of their invasive species laws and policies. Vigorous state enforcement may reduce the need for federal enforcement pursuant to the Lacey Act, although federal enforcement may be preferred and even necessary in egregious cases. By working together, while recognizing the limits of their respective authorities, the federal government and the Western states can increase the effectiveness of dreissenid mussel prevention programs through the development of consistent rules and regulations, the sharing of information to facilitate enforcement, and the improvement of communication to raise the visibility of enforcement actions throughout the West.