FEBRUARY 2016
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David Petty, Editor

#### A Message from your AERF President Jim Schmidt

Since my last update in the Spring Newsletter, the AERF has made significant progress with both some needed internal reorganizational changes as well as funded projects and activities. Your Board of Directors (Gold Sponsor Delegates) had productive meetings at the May FL Aquatic Short Course in Coral Springs and following the APMS conference in Myrtle Beach with decisions to move forward on a number of our initiatives for this year and into 2016. Your Board continues to encourage comments, ideas and inquiries from all Sponsors to further support our Mission: "The Aquatic Ecosystem Restoration Foundation is committed to sustainable water resources through the science of aquatic ecosystem management in collaboration with industry, academia, government and other stakeholders."

I encourage you to view the updated AERF website at <a href="www.aquatics.org">www.aquatics.org</a>. Editor, Dave Petty, has completed some re-formatting plus added detail under the Research & Education / Activities tab on present, completed and on-going funded projects. We appreciate the continued support of our Sponsors as well as our research partners in furthering these worthwhile programs. I've reported on most of the 2015/2016 initiatives in the previous newsletter, so check out this page for further updates on new, ongoing as well as completed programs and projects.

Internally, we realized a need for updating our Bylaws in conjunction with some required legal changes in our Articles of Incorporation. This provided the opportunity to make some changes in accordance with how we conduct our "business" now and in the future. Like many other long-standing organizations, the need for an Operations Manual has been acknowledged in order to capture standardized policies and procedures approved by the Board over the years. This will include improvements in our budgeting process to ensure our expenditures are proportionately allocated to meet our Sponsors' current and future objectives in Research, Public Education and Regulatory activities. This must be balanced against income and comply with our 501(3)(c) non-profit status.

Our Board of Directors continues to monitor pertinent Federal legislation and rule-making that may affect our Mission. This includes legal as well as legislative actions on the pending "Waters of the U.S. (WOTUS) rule. More recently, EPA has drafted changes in certification and licensing requirements for pesticide applicators. While targeted for those who apply Restricted Use Pesticides (RUP's), this will likely impact aquatic applicators in states that utilize the same training and licensing program for government and commercial applicators using General Use pesticides. Look for Carlton Layne's additional information on these rules in this Newsletter and watch for updates on our website.

The AERF Board will be conducting a Strategic Planning session early next year. With changes in the industry, government, universities, colleagues, regulations and priority issues challenging our discipline, we recognize the need to review our Mission, Vision, Goals and Objectives for a clearer and effective path forward. Ultimately, we look to ensure our sustainability as a trusted and valued science-based resource for our sponsors and stakeholders. Your input is encouraged.

Best Wishes to all.

Jim



## NPDES Renewal Carlton Layne

It's like déjà vu all over again. (Yogi Berra)

Has it really been five years since EPA first published its draft National Pollution Discharge Elimination System (NPDES) Pesticide General Permit (PGP)? Close enough. On January 28th the Environmental Protection Agency (EPA) published their version of the next iteration of the NPDES-PGP. The current federal permit published in 2011 expires next October and a new one needs to be in place by then. NPDES permits cannot exceed five years in duration. States with delegated programs will then have to update their PGPs and submit them for EPA approval prior to their respective expiration dates. With more than a little skepticism I listened last September as representatives of the Office of Water stated that they were pleased with the PGP as written and suggested that there would be few changes in the proposed rule. Indeed, it appears that claim was accurate. We are still analyzing the proposed rule and the attendant fact sheet, but as yet have not found any "smoking gun" of concern. We're examining the Endangered and Threatened Species and Critical Habitat section very closely, but the federal proposal does not appear to go beyond the 2011 PGP.

Five years ago we feared citizen law suits, enormous enforcement actions, expensive permits mandated by the states, overbearing record keeping and reporting requirements and the subsequent increased costs of doing business. The lawsuits did not materialize, nor did the enforcement actions. Some states chose to charge high rates for permits, but for the most part the state fees were reasonable. Aquatic plant managers learned how to absorb the record keeping and reporting obligations with minimum adverse impacts on their businesses. The creativity and flexibility of American small businesses to overcome and adapt to a totally unwarranted regulation has been impressive. Remember – even the EPA originally took the position and published a policy that the NPDES-PGP was unnecessary. The NPDES-PGP is still a court-ordered program awaiting a legislative fix. If all aspects of the proposed rule remain as close to the old permit as it appears to do, we could actually complement the EPA for a job well done. That would indeed be a welcome departure from the critiques of the more recent actions of the agency. We must keep in mind, however, two important things.

First, once the federal NPDES-PGP becomes final on November 1<sup>st</sup> every state with a delegated Clean Water Act program must update their PGP program and submit it to their respective EPA Region for approval. At that time, all aquatic plant managers must diligently review the new state proposals to guard against unreasonable expansions and added unwarranted restrictions. In addition, this cycle will likely provide the opportunity for the EPA to strive for more uniformity among the various state programs. As a result, some states may have to make substantial changes in their PGP programs. AERF will track the state actions as close as possible and keep you informed as necessary.

Second, there is a huge unknown hovering over the entire process. As indicated above, the proposed NPDES-PGP anticipates business as usual. It's possible that could be the case, but we don't know that. The application (discharge) of pesticides (pollutants) into over or near waters of the United States can only take place under the auspices of an NPDES permit. The 6<sup>th</sup> Circuit Court of Appeals determined that years ago. Attempts to reverse that decision in the Supreme Court failed. In addition, all efforts to remedy the issue in Congress has likewise failed; and no legislative fix is likely under this administration given the president's vow to veto any bill related to WOTUS sent to his desk for action.

The EPA was able to write the current proposed regulation without even mentioning the issue of jurisdiction because the rule which changed the statutory definition of Waters of the United States (WOTUS) was finalized and implemented on August 29, 2015. In early October the 6<sup>th</sup> Circuit Court of Appeals issued a nationwide temporary injunction which halted the implementation of the new definition of WOTUS. This was a reaction to lawsuits filed by no less than 31 states and an injunction issued by a federal district court which covered 13 states. We are still awaiting a decision from the 6<sup>th</sup> Circuit after their December hearing on the matter of proper jurisdiction (district court or circuit court). Regardless of their decision, the matter will still need to be litigated to its conclusion and observers pretty much all conclude the issue is likely to end up in the Supreme Court. With the recent death of Justice Scalia, a harsh critic of the EPA's past expansion attempts of WOTUS definitions, the fate of the cases challenging the WOTUS definition is truly unpredictable. Seven states (Connecticut, Massachusetts, Vermont, New York, Washington, Oregon and Hawaii) sided with the EPA and filed briefs supporting the new definition.

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If the new WOTUS definition goes through as proposed, it will result in an incredible expansion of The EPA and U.S. Army Corps of Engineers' jurisdiction. The results will, without doubt, have a major impact on all vegetation management activities including aquatic, rangeland and forestry, and rights of way (railroad, highway and utility). In addition, mosquito control, farming and land development activities will also be heavily impacted. Please go to our website (<a href="www.aquatics.org">www.aquatics.org</a>) for more information on this topic. The American Farm Bureau website has some great maps which illustration the incredible overreach of both the EPA and the Corps in the new WOTUS definition (<a href="www.ditchtherule.fb.org">www.ditchtherule.fb.org</a>). Click on the "Let's Map EPA's Overreach" section to see the maps. We'll keep you informed as information becomes available.

### Sixth Circuit Claims Jurisdiction to Hear Merits of Challenge to EPA Waters of the United States Rule

A federal appeals court this week ruled it will hear challenges to the Waters of the U.S. rule. On February 22, the 6th Circuit Court of Appeals in Cincinnati agreed to hear challenges to the Environmental Protection Agency's rule by 18 states. The states say the EPA goes too far with the rule, and that WOTUS would be costly to landowners. The EPA defends the rule as a safeguard for drinking water for 117 million Americans. The rule went into effect last August but is temporarily on hold pending resolution of the jurisdictional challenge. The 6th Circuit issued the federal stay last year. A Washington Post opinion piece writes the announcement to hear challenges on the rule "would seem to indicate that things look good for those challenging the rule for exceeding the scope of the Clean Water Act."

#### Diuron in Michigan Joe Bondra

The Michigan Aquatic Managers Association (MAMA) requested the Michigan Department of Agriculture and Rural Development (MDARD) consider listing diuron as a restricted use pesticide (RUP) in Michigan in January 2014 due to widespread off label use in the aquatic environment. MAMA provided the below position paper. MDARD agreed and received authorization for the Office of Regulatory Reinvention (ORR) to proceed in amending Regulation 633 the Michigan restricted use pesticide regulation. A stakeholder meeting was held and resulted in a unanimous decision to list diuron as an RUP and while the Regulation was open, to de-list diquat dibromide as no scientific reason was apparent that it should be listed as such. The updated Reg 633 was sent back to ORR for a Regulatory Impact Statement. It then goes to the Legislative Services Bureau and then a 30 day public comment period. At that point it goes to the Joint Administrative Committee or Administrative Rules (JACAR) for review to be sure the regulating agency requesting the action did not exceed the scope or ability their responsibility.

It is expected to be officially law by January 2016

#### **AERF Sponsorship Renewals**

By now you should have received your 2016 sponsorship renewal letters. If you aren't already a sponsor, please consider it. Information on sponsorship is available on the next to last page of this newsletter, and on our website.

Beginning in 2016, sponsorship letters will be mailed by October 30th. This is to allow you to consider if you want to submit your donation and claim it on that year's taxes, and to allow the AERF Board to better do budget planning for the coming year during the winter board meeting.

Also be sure to look for and check the box on your renewal form if you are an application company. This will ensure that you get listed on our applicators page as well as our sponsors page of the website. This listing is available to only Associate Sponsors and above.

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## 2015 Season Activity Report Jeff Holland

HIGHLIGHTS: Promoting the AERF foundation to anglers and outdoor enthusiasts was accomplished utilizing my activities with the Bassmaster Opens tour, social media, grass-roots Bass Nation membership, and local charity involvement. Aquatic plant discussions were fostered through personal engagement, blog stories, website links, prototype smartphone app, and pro staff activities for Mercury Marine and Lowrance Insight Genesis.

Promotional opportunities in 2015 utilized the AERF boat-wrap for 454,500 logo impressions in travel. Personal articles and videos utilizing social media in 2015 showed a 13% increase in new sessions, 82% increase in new users, reached nine countries world-wide (35% USA). Pageview analytics showed new audiences were reached in 2015 from the affinity categories of Hobbies & Leisure, Outdoors/Fishing, Movie & TV Lovers, and Outdoor Enthusiasts.

#### **DETAILS:**

Outreach: Angler outreach continued to focus on the affiliation with the Bass Anglers Sportsman Society (BASS) and their grassroots clubs and conservation efforts. Fishing as a competitor within the BASS organization gained access to an audience of over 500,000 members, a local network of Bass Nation members, conservation groups, more than 150 colleges, and hundreds of high schools.

Event Weigh-ins Interviews: Live interviews were conducted while participating in Bassmaster Southern Open events. Broadcasts were archived by BASS on the internet site Bassmaster.com and estimated to reach 18 million page views.

Angler Plant ID App: An angler plant-ID guide continued to be championed through continuous improvements of a smartphone app (http://www.appsbar.com/ABP/).

The prototype app is helping provide insight into the criteria required for plant drawings, photographs, videos, and related content material. The project is still under construction with collaborators, hopefully reaching the goal of providing AERF a useful and recognizable guide for anglers soon.

Social Media: The active webpage "Jeff Holland Fishing.com" and blog was maintained as the core social media exchange platform for promoting AERF and plant related topics. The sites showed a 13% increase in new sessions and 82% increase in new users in 2015. Throughout the season, a variety of social media venues were supported to promote AERF and aquatic plant information: Facebook Page, Twitter, GooglePlus, SoundCloud, Blogger, and YouTube. In addition, new social outlets of Pinterest and Instagram were incorporated to bring a higher level of photographic content of plants and AERF material.

Boat Wrap: The AERF-Logo Boat Wrap provided a seasonal estimate of 4,500 miles and 454, 500 impressions. Professional cleaning and boat care continued to maintain the AERF logo is good shape and no replacement is required

Professional Affiliations: I maintain a professional position as a Limnologist with the Reedy Creek Improvement District, a Board member of the Florida Lake Management Society, and an active member of the following organizations: Florida Aquatic Plant Management.

Charity Events: AERF was represented in the charity organization "Kids in Support of Soldiers" (kidsinsupportofsoldiers.com) and United Way in 2015.

Webpage (<a href="IeffHollandFishing.com">IeffHollandFishing.com</a>)

Facebook Page: (http://www.facebook.com/jeffhollandfishing1)
GooglePlus: (https://plus.google.com/+JeffHollandFishing/about)

Twitter (@JeffHFishing)

Blogger (jeffhollandfishing.blogspot.com)

YouTube (youtu.be/ENMK135NEa0)

SoundCloud audio podcast (soundcloud.com/jeffhollandfishing)

Pinterest: (https://www.pinterest.com/jhfishdad/)
Instagram: (https://instagram.com/jeffhollandfishing)

Be sure to check out the video of Jeff representing the AERF at the 2015 Bassmaster Southern Open at <a href="http://www.aquatics.org/news.html">http://www.aquatics.org/news.html</a>

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## "Invasives in Action" Swamp Tour Lyn A Gettys and Christopher R Mudge

Ah, to be in a Louisiana swamp in the summertime... hot, humid, and a heck of a lot of fun!!! That's where we were on the morning of August 6, where we led an "Invasives in Action" swamp tour for a select group of folks attending the American Society for Horticultural Science (ASHS) annual meeting in New Orleans. The tour was hosted by the ASHS Invasive Plants Research Working Group and was sponsored by the Aquatic Ecosystem Restoration Foundation (AERF), a non-profit foundation that is committed to sustainable water resources through the science of aquatic ecosystem management in collaboration with industry, academia, government and other stakeholders.

The tour was operated by the Louisiana Tour Company, which picked us up on Canal Street in downtown New Orleans and transported us to the Jean Lafitte National Historical Park and Preserve in Marrero, LA. We were met by our tour captain Reggie, who got all 42 of us loaded onto a private pontoon boat. We made our way through the Barataria Swamps, the Crown Jewel of the Louisiana Purchase, and saw all sorts of interesting things. The tour was co-guided by Dr. Lyn Gettys (University of Florida) and Dr. Chris Mudge (Louisiana State University and US Army Engineers), who provided fun facts and trivia along the way. Reggie told us about growing up Cajun and spending time in Barataria over the years.

We saw lots of wildlife, including turtles, fish and gators (of course!). They were entertaining, but our primary mission was to check out the invasive aquatic plants in the swamps. So why go all the way to Louisiana to see the same weeds we have in Florida?!?!? Because, dear readers, the goal of this expedition was education! Most of our invasive plants have been intentionally introduced as ornamentals, aquarium plants, or for other purposes such as forage. As aquatic resource managers, you know that, but our tour attendees were horticulturists - the very group that historically has been responsible for importing many of our weeds. There has long been a battle between the "hort people" and the "weed people"; the horticulture folks promote new, unusual, exotic plants, while the weed folks protest that these imported species are invasive and will take over the ecosystem. In fact, this conflict is responsible for the creation of the University of Florida's Assessment of Non-Native Plants in Florida's Natural Areas (known affectionately as "the IFAS Assessment" - see the Spring 2015 issue of Aquatics for more information). Our objective during this tour was to let the horticulturists see first -hand how seemingly desirable introduced plants can escape into the wild and completely change the habitat. Some of the invasive plants we saw in the Barataria Swamp included giant and common salvinia (Salvinia molesta and S. minima; introduced as aquarium and water garden plants), hydrilla (Hydrilla verticillata; introduced as an oxygenator for aquariums), waterhyacinth (Eichhornia crassipes; introduced as a water garden ornamental), wild taro (Colocasia esculenta; introduced as a food crop and as an ornamental) and Chinese tallowtree (Triadica sebifera; introduced for tallow, soap and candle-making). In addition to the bad actors, we were able to show attendees native plants as well, including southern naiad (Najas guadalupensis), eelgrass (Vallisneria americana), marsh mallow (Hibiscus grandiflorus) and coontail (Ceratophyllum demersum). By the time we made it back to the dock, it was clear that our mission was accomplished - our tourgoers now had a better appreciation of how plants that seem fine as ornamentals can do very, very bad things to the ecosystem if they escape cultivation. As we boarded the wonderfully air-conditioned buses and headed back to New Orleans, all attendees were given a copy of the 3rd edition of "Biology and Control of Aquatic Plants: A Best Management Practices Handbook", known commonly as "the AERF BMP". We are grateful to the AERF for sponsoring this tour - thanks to their support, a new crop of horticulturists has seen the light and will be able to spread the word about not spreading introduced plants.

Dr. Lyn Gettys (lgettys@ufl.edu) is an Assistant Professor of Agronomy at the University of Florida's Fort Lauderdale Research and Education Center. Dr. Chris Mudge (CMudge@agcenter.lsu.edu) is a Research Biologist with the US Army ERDC and is based at Louisiana State University's School of Plant, Environmental & Soil Sciences in Baton Rouge.

## Applicator Certification and Training Standards Carlton Layne

Earlier this year, the EPA published proposed new standards for the certification and training (C&T) of pesticide applicators who buy and use restricted use pesticides. The number of restricted use pesticides over the years has remained relatively low. What has evolved, however, is that both the feds and the states have relied on the C&T program as the basis for the universal training of pesticides applicators and technicians. Most states and tribes have also included certification within their commercial applicator licensing and permitting programs. Any change in the federal program will therefore have an impact on the state and tribal programs as well.

The EPA is required to establish the minimum standards for persons who use or purchase restricted use pesticide to be certified as competent. There are eight tribes which have been authorized by the EPA to certify pesticide applicators within their jurisdictions. Otherwise, the EPA certifies pesticide applicators in Indian country, and the states are authorized to certify pesticide applicators within their borders. The regulations at 40 CFR Part 171 have not been updated in nearly forty years. Three months ago the Agency published proposed new regulations for the Certification and Training (C&T) of pesticide applicators. The comment period for this proposed regulation has closed. Frankly, speaking as someone who spends most of his time training pesticide applicators around the country and advocating high standards for certification, I cannot criticize the proposed federal program.

While it's unlikely any of you will require actual EPA certification and will rely instead on your respective states for training opportunities and ultimate certification, we must keep in mind that the proposed EPA regulations will definitely have an effect on most, if not all, state C&T programs. Every state will be required to amend their enabling legislation and rules and resubmit a State Plan for the Training and Certification of Pesticide Applicators within two years of the final EPA Rule effective date. While aquatic plant managers likely will never use a federally restricted use pesticide, the fact is that most states have adopted certification requirements within their commercial licensing and/or aquatic permitting programs. So the federal minimum standards are important and your state's reaction to them will have an effect on you and your business.

Perhaps the biggest proposed change affecting the aquatic plant management community is the implementation of training requirements for those persons working under the direct supervision of certified applicators. The proposal suggests training standards similar in scope and content to those currently defined for "pesticide handlers" in the Worker Protection Standards. As currently presented, the training for those working under the certification of another will be an annual requirement.

You can count on the AERF to monitor this process and report to you as new information becomes available.

### Process Changes for Reporting Sightings of Asian Carp, other Non-Native Aquatic Species USGS and State Agencies Collecting Information

Boaters, swimmers or other members of the public who see Lionfish, Asian carp, Zebra mussels or any other invasive or non-native plant or animal species have two options to report sightings.

Sightings nationwide should now be <u>reported online</u> to the U.S. Geological Survey's <u>Nonindigenous Aquatic</u> <u>Species Program</u>, called the NAS, or directly <u>to state government natural resource agencies</u>.

The public has been able to report sightings to the USGS and state agencies for some time, but with the discontinuation of a federal reporting Aquatic Nuisance Species hotline late last year researchers are trying to get the word out on the updated reporting system and the continued importance of reporting sightings.

For 19 years, the U.S. Fish and Wildlife Service and the <u>Aquatic Nuisance Species Task Force</u> operated a 24-hour phone hotline available to report sightings. In recent years, the line was seldom used, with sightings being more often than not reported via email, prompting the change in process. Scientists say reporting sightings is still very important, and very easy.

To report the sighting of an invasive or non-native aquatic species, please visit: www.usgs.gov/stopans.

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### Impact of Invasive Aquatic Plants on Native Species Lauren M. Pintor

Aquatic invasive plants may have a particularly large impact on freshwater biodiversity through their impacts on both native aquatic plants and animals. Yet interestingly, previous studies on the effects of aquatic invasive plants have sometimes found contradictory conclusions. Some studies have found relatively profound negative impacts of aquatic invasive plants, whereas others have found no clear effect of invasive plants on native freshwater flora and fauna, including invertebrates and fish. With funding from the Aquatic Ecosystem Restoration Foundation, Dr. Lauren Pintor and her laboratory at The Ohio State University's, School of Environment and Natural Resources are conducting a study to summarize existing literature and quantify the effect of aquatic invasive plants on native flora and fauna through a formal systematic review and meta-analysis. Specifically, Dr. Pintor and her lab recently conducted a literature search and narrative review to identify and qualitatively summarize studies from the peerreviewed literature that evaluated the impact of aquatic invasive plants on native species. They additionally identified studies that had explicitly evaluated the impacts of aquatic invasive plants on threatened and endangered species and their associated habitat, as well as the effect of control methods used on aquatic invasive plants on native species. Results of this literature search and narrative review identified 47 papers that evaluated the effects of aquatic invasive plants on native species, in general. Fifteen papers indicated that aquatic invasive plants have a positive effect on native species, 29 papers indicated a negative effect and 13 indicated no effect. There were 23 papers that specifically evaluated the effect of aquatic invasive plants on threatened and endangered species. Four papers indicated that aquatic invasive plants had a positive effect on T & E species, 16 papers indicated a negative effect and 1 paper indicated no effect. These effects were summarized using a qualitative vote counting approach that simply counts the number of papers that found a positive, negative or no effect (e.g. narrative review). This approach does not provide a statistical synthesis of the data, nor does it objectively assign a weight to each study based on mathematical or statistical criteria, such as the sample size associated with the study or variance around estimates of the effect.

In contrast to qualitative, narrative reviews, systematic reviews and meta-analyses are used to quantitatively synthesize the available evidence for a particular research question using rigorous statistical methods. There are multiple advantages of this approach over a simple vote counting method or narrative review. First, a meta-analysis allows you to statistically generating an accurate effect size (e.g. difference between two groups, such as the difference in native biodiversity between an invaded and uninvaded site). This allows you to quantitatively state the magnitude of effect of aquatic invasive plants on native species, as opposed to simply saying that a certain proportion of studies were negative or positive. Secondly, a meta-analysis statistically weights each study by the strength of the study design. For example, it takes into account the sample size and variance in the dataset. This is particularly powerful because in effect, it assigns a lower weight to studies that were not well replicated or had high variance, and assigns greater weight to studies that were well replicated.

Dr. Pintor and a graduate student working in her lab, Kaitlin Kinney, have recently completed extracting the data from approximately 90% of the papers identified through their literature search and once they have finished will begin formal meta-analyses.

#### **Changes to the AERF Board of Directors**

Effective in March, following official approval of the Board at their Spring Meeting, there will be two replacements to the board. For Applied Biochemists, Brad Howell will be replaced by Bill Ratajczyk. For NuFarm, Bo Burns will be replaced by Clark Boyd.

The AERF would like to thank Brad and Bo for their years of service.

## 2016 State Aquatic Bills of Interest Jim Skillen

The 2016 legislative session is underway with 35 states houses open for business. As of February 19, 2016 there were already 70 proposed bills under consideration potentially affecting aquatic plant management and/or pesticides. Most of these bills (55) are still under consideration after being introduced last year.

I will continue to identify and follow bills that have the potential to impact AERF sponsors and their constituents. I will follow the bills that move through the committees and reach the floor and provide updates on pertinent activity.

State pesticide registration fees will continue to go up this year with the average state fee now at \$200.00 per brand/formulation. If you register a product in every state, it costs the registrant more than \$10,000 per year. A number of states will raise their registration fees again this year. This may be a preliminary response to the proposed, amended rules for pesticide applicator training and certification, an issue we are continuing to track

State	Bill	Title	Date of Action
AK	H 38	Aquatic Invasive Species Fund	1/20/2015
	H 53	Use of Pesticides and Chemicals Near a Fish Habitat	1/20/2015
AZ	H 2281	Prohibited Pesticides	1/14/2016
CA	S 223	Division of Boating and Waterways: Oversight Committee	2/13/2015
GA	H 771	Definitions Relative To Plant Disease and Pesticides	1/14/2016
HI	H 504	Pesticide Licensing Fee	1/23/2015
	H 528	Invasive Species Council	1/23/2015
	H 1456	Invasive Species	1/29/2015
	H 1596	Invasive Species	1/20/2016
	S 610	Pesticide Rules and Ordinances	1/23/2015
	S 734	Pesticides Licensing Fee	1/23/2015
IA	H 289	Commercial Applicator of Pesticides Provisions	2/17/2015
	S 1190	Commercial Applicator of Pesticides	2/17/2015
	S 1221	Pesticide Act	2/24/2015
ΙЬ	H 1049	Exotic Weed Act	2/2/2015
	H 3427	Pesticide Act	2/26/2015
	H 3462	Food Drug and Cosmetic Act	2/26/2015
	Н 3815	Pesticide Act	2/26/2015
KS	H 2479	Noxious Weed Law	1/19/2016
	S 134	Noxious Weed Law	2/2/2015
MA	H 851	Application of Pesticides in Municipalities	1/14/2015
	H 1277	Mosquito Control	1/15/2015
	H 2275	Mosquito Borne Disease Control Board	1/16/2015
	H 3086	Invasive Plants	1/16/2015
	S 1731	Pesticide Applications	1/16/2015
	S 1732	Cimex Lectularius	1/16/2015
MD	S 112	Pest Control Compact	1/13/2016

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State	Bill	Title	Date of Action
ME	L 209	Invasive Aquatic Plants	1/14/2015
	L 1303	Fund for the Operations of the Insect Control Lab	1/15/2015
	L 1453	Herbicide Spraying on Abandoned Railroad Lines	1/15/2015
	L 1481	Alewives Restoration Program in the St. Croix River	1/15/2015
	L 1601	Local Control of Pesticides By Ordinance	1/15/2015
	L 1631	Milfoil Infestations	1/15/2015
	L 1843	Standards for outdoor application of pesticides	1/26/2015
	L 1844	Standards for outdoor application of pesticides	1/26/2015
MI	S 104	Aquatic Invasive Species	2/12/2015
	S 145	Aquatic Vegetation	2/18/2015
MM	H 184	Repeals aquatic invasive species prevention program	1/15/2015
	H 221	Eliminates state preemption of certain pesticide control ordinances	1/20/2015
	H 1065	Modifies requirements for aquatic invasives species trailer decal	2/19/2015
	S 230	Repeals aquatic invasive species prevention program requirements	1/20/2015
	S 235	Repeals aquatic invasive species prevention program requirements	1/20/2015
NIE	T 000	Cantual Deadaida Waratatian	1/21/2015
NE	L 639	Control Roadside Vegetation	
	L 711	Changes provisions of the Noxious Weed Control Act	1/7/2016
NH	H 1589	Prohibits the transport of exotic aquatic weeds	1/6/2016
NJ	S 2694	Prohibits sale or planting of certain invasive plant species	1/13/2015
NY	A 2588	Registration and Certification of Pesticide Applicators	1/20/2015
	A 2984	Allows Regulation of Pesticide Use by Local Governments	1/20/2015
	A 3360	Application of Pesticides To Wetlands	1/22/2015
	A 4444	Use of Least Toxic Pesticides	2/2/2015
	A 4451	Written Notices Required for Pesticides	2/2/2015
	A 5529	Prohibition on Use of Certain Chemicals	2/27/2015
	A 8715	Prohibits the use of the chemical Methoprene as a pesticide	1/13/2016
	S 1626	Permits commercial applicators of pesticides to apply pesticides below label rates.	1/13/2015
	S 3064	Definition of Integrated Pest Management	2/2/2015
ОК	H 2502	Agriculture	1/21/2016
	S 419	Pesticide licenses, permits, and registration requirements	2/2/2015
	S 1223	Pesticide Study	1/21/2016
PA	S 1110	Controlled Plants & Noxious Weeds	1/21/2016
TN	H 63	Pest Control	1/15/2015
	H 245	Pest Control	2/3/2015
VA	H 734	Noxious Weeds	1/13/2016
	H 1115	Zebra Mussels	1/13/2016
	S 348	Pesticide Control Act	1/13/2016
WA	H 1654	Noxious Weeds and Honey Bees	1/23/2015
	H 2331	Invasive Species Council and Account	1/11/2016
	S 5601	Comparable Recertification Standards of Private Entities	1/23/2015
	S 5769	Management of Noxious Weeds on State Lands	1/30/2015
	S 6162	Invasive Species Council and Account	1/11/2016
WY	S 5	Pesticide Registration Fee	12/17/2015

### **Your AERF Sponsorship is key to:**

- ► maintaining critical efforts in education and outreach
- ► expanding partnerships with regulatory agencies
- ▶ building partnerships

- ► supporting high quality research
- ► attracting graduate students
- ▶ expanding an aleady diverse membership
- ► being a source for resource management agencies

To donate, join or renew your Sponsorship in the AERF please send the completed application form and payment to Treasurer, AERF, 1860 Bagwell Street, Flint, MI 48503-4406.

Date: Name:	Company:	
Address:		
Phone:	Fax:	
Web Address:	Email:	
For more information contact: Carlton R. Layne, Executive Director, AERI 3272 Sherman Ridge Drive Marietta, GA 30064 Phone: 678-773-1364 Fax 770-499-0158 Email clayne@aquatics.org.	Check here if you are an applicator company, so we can include you on our applicator pages.  Check here if you would like to receive a free copy of the BMP with your membership.	
Please use the following as a guide i		-
Of course, you are welcome to join AERF at	·	ppreciated.
Gold is recommended for manufacturer	s and registrants	\$15,000
☐ <b>Silver</b> and above is recommended for fe	ormulators	\$5,000
☐ <b>Bronze</b> and above is recommended for	distributors	\$2,500
☐ <b>Affiliate</b> and above is recommended for equipment manufacturers/resellers and b		\$1,000
Associate and above is recommended aquatic resource management association		\$250
☐ <b>Individual</b> and above is recommended	for individual members	\$50
☐ <b>Student</b> and above is recommended for	or students	\$0

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WWW.AQUATICS.ORG

## Biology and Control of Aquatic Plants



A Best Management Practices Handbook: Third Edition

Lyn A. Gettys, William T. Haller and David G. Petty, editors

#### **Sponsorship**

The AERF respectfully requests that you consider sponsorship. AERF will continue to work on your behalf, and as a member, you will greatly benefit from our work on regulatory and research aspects of aquatic plant management. With changes in the regulatory environment now and in the future, it is essential to be involved and to support all the hard work of your AERF associates.

Please contact Carlton Layne for information on how you can best participate.

#### The AERF Mission

The Aquatic Ecosystem Restoration Foundation is committed to sustainable water resources through the science of aquatic ecosystem management in collaboration with industry, academia, government and other stakeholders.

#### **Strategic Goals**

- Provide the public information concerning the benefits and value of conserving aquatic ecosystems including the aquatic use of herbicides and algaecides in the aquatic environment.
- Provide information and resources to assist regulatory agencies and other entities making decisions that impact aquatic plant management.
- Fund research in applied aquatic plant management at major universities.

**Upcoming Events** 

Mai 0-0 Midwest riquatio i faitt Mariageritetit bociety	Mar 6-9	Midwest A	Aquatic Plant	t Management Society
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Grand Rapids, MI

Mar 21-23 Western Aquatic Plant Management Society

San Diego, CA

May 2-5 Aquatic Weed Short Course

Coral Springs, FL

Jul 17-20 Aguatic Plant Management Society

Grand Rapids, MI

#### **Contacts**

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#### 2016 Officers

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