

## COMMENTARY

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I AM A LONG-TIME ANGLER and was involved in both firearm and bow hunting in my younger years, but when it comes to problem solving, I always like to keep a lot of arrows in my quiver. Most of the work I have been doing in the eastern US is on the fishing end of lead, not the hunting end, so I'm coming at this from a little bit different point of view.

New England is a collection of 6 tiny states that, if you add them all together, is about the size of one western state. It's not an area where hunting and fishing are as important to the economies of the states, unlike many in the west, so it's a little harder to get the attention of some agencies. But in terms of fishing, I think we have some perspective that can be helpful in the present discussion.

First, let's talk about big box stores and how to get their attention for the sales of non-toxic ammunition, fishing gear, and other materials. I know from working with Walmart in New England that they have a "green" program. They think of themselves as a "green" organization. Each state has a Walmart representative. If you can have a meeting with that person, I've found that they are very congenial to this sort of thing and, if they are interested, they will put up a little exhibit and maybe have some

state agency brochures, information brochures, and that sort of thing. So, go talk with them. They are looking for a business edge, and we can encourage them to find it through an improved marketing of non-toxic gear. I think the same is true for manufacturers. I know from talking with many sinker manufacturers, such as Water Gremlin. They were one of the first US companies to put out a line of nontoxic sinkers in the early '90s; but Gremlin Green® never sold well, and I know that this frustrated the company. Perhaps there's an opportunity here for many of our organizations to help. One reason that Gremlin Green® may not have sold well is that it was not effectively marketed. None of the organizations that I know of—state fish and game agencies, conservation NGOs—nobody helped. None of us stepped forward to put articles in our newsletters about using Gremlin Green® (or other nontoxic alternatives) when we fish. I think that all of our organizations together need to jump on the bandwagon to help create market demand for these non-toxic products. We all have our own means of communication with newsletters and web sites. We can help increase demand and help market these products among our memberships, readers and the groups we influence.

I have a question for people here today. As we consider trying to develop and implement policy: is it important to unify the lead issue so that we are talking about all sorts of lead objects? This would include such things as fishing gear, wheel weights, bullets, sheathing for roofs, and things of that nature. Conversely, it might be important to separate out each class of products and seek different solutions for each one by having separate interactions with each separate constituency? I'm not sure of the right answer... and it may vary from state to state. I know from talking with the Massachusetts Wildlife Federation a couple of weeks ago, that about 80% of the people there are both hunters and anglers. Thus with that constituency I'd like to discuss both non-lead hunting and fishing gear together. But I think we have to know our audience, as many people have said, and develop arguments that meet the needs of each situation.

On the human health side of things, I think there is a lot we can do, but in many cases this will mean stepping outside of our comfort zones. Every state public health agency has a lead poisoning prevention program. I am sure, to a 100% certainty, that more money is spent in this country on lead poisoning prevention on children and in occupational settings than is spent on all our sporting activities put together. It is amazing the dollars spent trying to do lead poisoning detection and remediation. Every state public health agency has human data. When I go to Maine, New Hampshire, Vermont, or Massachusetts, they can tell me of homes in which people were making bullets or making sinkers or making dive weights and where the children got lead poisoning. We have to get those data together with the sportsmen's data to figure out the magnitude of these problems and the educational programs that we need to go after.

Coming back to one of the things I said at the beginning, this is a marvelous meeting, but this should only be the beginning. I would challenge us all, myself included, to do similar presentations at other meetings. These might include The Wildlife Society meeting, the Wildlife Disease Association meeting, various state and regional meetings such as the 68th Midwest Fish & Wildlife Conference which many of us attended earlier this year, as well as medical, public health and veterinary meetings.

Many times organizations are looking for program topics for a small symposium or session. Propose one. I think there are a great many people interested in expanding discussions of nontoxic gear. For example, the group we've assembled here in Boise is very generous with their expertise. Everybody will share data. We have the same agenda. We are all interested in protecting both wildlife and human health. We're not anti-hunting; we're not anti-fishing. We DO want to protect the things that are precious to us on this planet. We have enough threats as it is.

One meeting coming up in Mexico the first week in December 2008, is the Eco-health II meeting. Eco-Health I was held in Madison, Wisconsin a couple of years ago. It was an attempt to bring together people who were looking at environmental health and human health issues. A session on lead and health has been proposed for the meeting in Mexico. There is great concern about lead (Pb) in Latin America including issues of water quality, wildlife, and human health. We can continue to build bridges and expand the discussions we've had here in Boise to include the whole hemisphere and, in fact, the world.

Let's get this on the agenda for many other meetings. Let's keep talking about it. Let's bring everybody in under the tent because it is extremely important to do so.

Going back to my experience with state agencies in New England, I know how strapped state fish and wildlife agencies are because I work with these people every day. I've been sitting on a state nongame advisory council for 22 years. Everybody is worried about sales of licenses, everybody is worried about income, and funding for many of the state nongame check-offs is going down the tubes. We've had our state budget line item zeroed out this year and we're fighting that battle (NOTE: funding has since been restored to the program). So, what can we do to help the state agencies? What can we do to increase their funding for education, research and monitoring?

Many states have developed programs to encourage new people to become involved in outdoor shooting and fishing activities and many such activities are

directed at women and children. We have National Fishing Day activities and we have a program in Massachusetts called Project WoodsWoman which is trying to get urban and suburban women out in the woods learning basic hunting and fishing skills. I think this is wonderful. Everyone needs to get outdoors and get involved in recreational and conservation activities. But from a health perspective, we are taking the two most sensitive components of our population, women of childbearing age and children, and potentially making them susceptible to lead exposure. We have an issue there that needs to be addressed. Any programs aimed at women and children need to be lead-free!

Last, we need to work together with many of the state agencies to try and find nontraditional sources of revenue for our state wildlife agencies. We've relied on license sales for revenue in the past and that has been very successful. We have not been so successful in getting nonconsumptive users of our environment, the campers, birdwatchers, and others, to pay their fair share of the costs

of conservation. People have proposed taxes on camping equipment, binoculars, birdseed, and other items but none of those proposals have proven to be politically viable. We need to work harder on such efforts. We need to get this other component of people who love wildlife and the environment to pay their fair share and support a wide variety of conservation efforts that benefit everyone.

*Biography.*—**Mark Pokras, D.V.M.**, is Associate Professor and former head of the Tufts University's Cummings School of Veterinary Medicine's Wildlife Clinic. He has been recognized for his work in education, wildlife rehabilitation, and wildlife health, and has been published extensively in these areas. As a cofounder of the Tufts Center for Conservation Medicine and member of many conservation and veterinary organizations, Dr. Pokras is strongly committed to building cross-disciplinary research and educational bridges to address health and conservation issues.