

SHORE STEWARDS NEWS

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Island County, Washington

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This issue was written by Cheryl Lovato-Niles, Beach Watchers & Shore Stewards Coordinator in Whatcom County. The methods of insect control described below are meant to minimize the use of chemicals that may be harmful to marine life.

Yellow Jacket Blues

Yellow jackets are remarkable creatures that are easy to admire but hard to love. Their populations bloom with the dog days of summer and suddenly they seem to be everywhere. A pesky part of our outdoor celebrations, they can deliver painful stings if they feel threatened or inadvertently get sipped up with your summer drink.

There are numerous pesticides on the market designed to quickly and easily rid us of yellow jackets. This approach to pest control may seem simple and expedient and it certainly is popular, but it has some drawbacks. One concern many people share is that exposure to pesticides like the ones used to kill yellow jackets can harm human health. Pesticides become a part of our indoor air when we store them in our homes, use them in our homes, or track them into our homes on our shoes or our pet's feet. According to the National Pesticide Telecommunication Network, the concentration of pesticides is typically higher in indoor air than outdoor air and the average person's greatest pesticide exposure takes place inside their home. And according to the University of Washington, more than half of all reported pesticide poisonings in the US occur in children younger than 6 years (nearly 50,000 children per year - though that number is thought to be grossly underestimated).



Yellow Jacket
photo courtesy of WSU Extension



Juvenile Salmon
Photo Courtesy of NOAA

Another drawback is that pesticides can harm the fish and wildlife in our streams, lakes, and bays. According to the NOAA Fisheries Service, studies have shown that 90% of waterways affected by cities, suburbs, or farms contain two or more pesticides. A recent study conducted by scientists with the Fisheries Service, Washington State University, and others evaluated the effects of 5 of the most extensively used pesticides in the Pacific Northwest and California—diazinon, malathion, chlorpyrifos, carbaryl, and carbofuran—on juvenile coho salmon.

The scientists discovered that mixtures of pesticides were much more harmful to the fish than exposures to the same amount of a single pesticide. Many salmon were sickened by surprisingly low doses of pesticide mixtures, and killed outright by higher doses even though no salmon in the study was killed by exposure to an individual pesticide. The most deadly pairing was diazinon and malathion.

In 2004, due to both human and environmental health concerns, diazinon was phased out of residential pesticide products. However, it is still one of the most commonly found insecticides in streams, lakes, and wetlands. Citizens who own diazinon containing pesticides are still legally allowed to use these previously purchased products but John Stark, Ecotoxicologist and co-author of the above study on salmon, recommends that people stop using any household products with diazinon, and properly dispose of them with their local household hazardous waste facility (If you would like to learn more about the research you can see a slide show online at http://www.nwfsc.noaa.gov/features/pesticide_mixtures/pesticide_mixtures.cfm). If you have decided to avoid using pesticides, or if you are just willing to give it a whirl, read on for tips and techniques suggested by the experts.

*Yellow jackets
and their more
docile cousins
the paper
wasps are
beneficial*

When you are considering yellow jacket controls, one of the first things to note is that yellow jackets along with paper wasps, their more docile cousins, are beneficial insects. They are predators who eat caterpillars, flies, beetle grubs and other insects who can become pests in our gardens and homes. The appetite of wasps and yellow jackets provides a great service to humanity. The best approach to out-of-the-way nests that don't threaten people or pets is to leave them alone and reap the benefits of free pest control.

Live and Let...Sting?

Ah, if only the yellow jackets always kept their distance from us in the spirit of peaceful coexistence. Anyone who's had a picnic in August knows that some yellow jackets are scavengers with a taste for meats and sweets and they can become a real nuisance while they sip your soda or chew on your chicken. And sometimes yellow jackets build their nests in painfully inconvenient places and threaten to forcefully protect their nests if disturbed.

Don't despair! There are many effective non-toxic ways to control yellow-jackets, and a little knowledge about these creatures can go a long way. Yellow jackets (and paper wasps, too) grow their colonies anew each year, beginning with a single fertile queen. The first young she rears nourish and care for subsequent broods and in this way the colony grows throughout the summer. In the late summer, when yellow jacket colonies are reaching their maximum size, they become more aggressive and favor scavenging over hunting, which is why your potluck plate is so very attractive to them then. These scavenging yellow jackets favor protein in the early season and sweets later in the summer.

Preventative Ways to Avoid Getting Stung

When you are out and about:

- Be on the lookout for and avoid their nests. If you see yellow jackets (or wasps for that matter) leaving and returning from a single location you have probably found their nest.
- Avoid wearing perfumes, hair sprays, or other strong scents.
- Avoid brightly colored clothing, particularly yellow, orange, and red.
- Choose picnic spots well away from trash cans.
- Use a straw or a glass for sweet drinks to avoid accidentally getting one in your mouth.

Around the house:

- Keep pet food and water covered, or better yet, inside.
- Maintain effective, tightly fitting window and door screens.
- Keep trash can lids tightly closed.
- Keep fallen fruit cleaned-up.

If you find that even after putting these preventative measures in place there are too many stinging things in your area, you'll want to figure out whether you're dealing with paper wasps or yellow jackets. Paper wasps are less aggressive insects that tend to steer clear of people - making them easier to live with. Paper wasps are generally about $\frac{3}{4}$ of an inch long, a little longer than yellow jackets. Their bodies are more slender and their legs dangle when they fly. They are usually yellow and dark brown, or mostly yellow with some areas of black. Their nests are smaller and contain open combs facing downward rather than being oval and enclosed. So long as you are not allergic to wasp stings and their nests aren't in high traffic areas, consider tolerating paper wasps and their nests.



European Paper Wasp on the left, Yellow Jacket on the right.



Aerial Yellow Jacket Nest
photo courtesy of WSU Extension



Paper Wasp Nest
photo courtesy of Utah State University Extension

Yellow jackets are shorter and stockier, about ½ inch long, black and yellow. Their nests are large paper ovals tucked into shrubbery or built underground in abandoned burrows.

If you find that you need to reduce wasp or yellow jacket populations, either by trapping or nest removal, your efforts are best spent in spring or early summer when the colonies are small. There are several non-toxic traps for yellow jackets that can be made from simple materials, and there are commercial traps for yellow jackets and wasps for sale at garden and hardware stores, and online at sites like these: <http://www.yellowjackettraps.com>, <http://www.rescue.com/>, and <http://www.saferbrand.com/store/insect-control/flying-insects/wasps-hornets>

If you are allergic to wasp and/or yellow jacket stings you should not handle traps or attempt to dislodge nests. Children also should not handle traps or attempt to dislodge nests for obvious reasons.

Simple non-toxic traps to catch yellow jackets use food as bait. Choosing the right bait will make these more successful. Yellow jackets are drawn to protein baits in the early summer (when they are feeding their growing larvae). Canned chicken, turkey, ham, and fish are all good protein baits. You'll need to change these frequently as the meat spoils quickly and yellow jackets are not drawn to rotting meat. Later in the season they are more interested in sweets. Spoiled fruit, soda, and apple juice are all good baits for late summer and fall. These should be changed at least weekly. To kill trapped yellow jackets place the trap in a plastic bag and then into the freezer overnight or the hot sun for the afternoon.

One simple trap can be made with an empty 2-liter soda bottle and baited with soda or juice. Fifty percent apple juice in water is quite effective in attracting western yellow jackets and German wasps. Cut the bottle one-third of the way from the top, invert the top, place it inside the bottom like a funnel and tape it in place. Yellow jackets fly in but can't get back out.

Image Courtesy of
WSU Extension



Another trap is a little more elaborate but can still be constructed with very simple materials. Suspend a piece of fish or meat from a tripod over a bucket of soapy water. When the yellow jackets take the meat they fly down and drown in the bucket.

There are also synthetic lures designed for use with commercially available traps. These should be changed every 6-8 weeks in the spring, every 2-4 weeks in the summer or as the manufacturer directs.

Removing a Nest

Removing a nest should only be handled by a professional with experience, a full beekeepers suit, and eye protection. Disturbing the nest can lead to a mass attack. Before deciding whether removing a nest is worthwhile, consider that all of the yellow jackets except next year's queens will die out as fall becomes winter. The nests disintegrate over the winter and are not reused the following year. The best solution to the problem may be to simply avoid the area and wait for nature to take its course.

If that's not practical, there are a number of ways in which professionals can remove nests without using pesticides. Working at night when the insects are calmer, aerial nests can be encased in a plastic bag and pulled loose. Nests can also be vacuumed out with a strong vacuum and a way to close the vacuum bag while the machine is still running. Research on this article found a story about a huge yellow jacket nest in Pasco County, Florida which was professionally destroyed with a spray of soapy foam and shovels.

Never pour gasoline, kerosene, or other flammable liquids into a nest. It is illegal, dangerous, and poisonous to the soil and water.

Summertime will always bring yellow jackets into our lives. Armed with knowledge and a willingness to perhaps try something new, we can benefit from their predatory habits, avoid painful stings, and control problem populations without poisoning our environment or exposing ourselves to pesticides.

References

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Events

Alternative Tidal Energy Presentation, Wednesday, Aug. 26, 6 – 8 pm, Coupeville Rec Hall:

Exciting developments are occurring in our alternative energy future and Whidbey Island's neighboring waterways are part of that story. Our economic security depends on reliable and renewable energy production. Snohomish County PUD and the Department of the Navy have both spent considerable money and resources into two in-water turbine technology projects for Admiralty Inlet. Hosted by the Island County Economic Development Council. Free to the public; no registration required.

Plastics 101: All You Wanted to Know About Plastics and Didn't Know Who to Ask, Wednesday, August 19, 6 – 8 pm, Coupeville Rec Hall (located on the corner of Coveland and Alexander Streets in Coupeville). Learn how plastics adversely affect our environment and health and what you can do to be part of the solution. By donation, make checks payable to WSU Island County Extension. For more information, call 240-5558 or e-mail n.zaretzke@co.island.wa.us. This is part of the WSU Extension Island Lifestyle Series.

Composting 101, Wednesday, August 26, 6 – 7, Good Cheer Community Garden, Bayview. Is your yard waste out of control? It must be time to start a compost pile or improve your existing one! Composting is a great way to dispose of your and kitchen wastes, lowering garbage bills and saving valuable landfill space while providing a wonderful mulch or soil amendment for your garden. This class will cover everything you need to know in order to begin or improve a functional composting system in your back yard. You'll also learn the safe way to use animal manures in your garden. By donation, make checks payable to WSU Island County Extension. For more information, call 240-5558 or e-mail n.zaretzke@co.island.wa.us. This is part of the WSU Extension Island Lifestyle Series.

Rain Barrel Construction, Thursday, August 27th, 4 – 7 pm. Terry's Corner, Camano Island. Save the rain for a sunny day! Come by the WSU Extension display at the new Thursday Market and learn how you can construct your own rain barrel, which can be attached to your downspouts to capture runoff from the roof. You can provide your indoor and garden plants with naturally soft water they will love! Learn about the different methods of making your own rain barrel, what materials to buy, and where to get them. Making your own barrel is quick and easy, at a fraction of the cost of buying one already constructed. A rain barrel display and handout materials will be available. Cost: by donation. Questions will also be answered by the presenter, Scott Chase, Shore Stewards coordinator for Island County. Questions or directions: (360) 387-3443, ext. 258 This is part of the WSU Extension Lifestyle Series.



This product is funded by the Island County Marine Resources Committee and the Northwest Straits Commission. You can view the Marine Resources Committee website at www.islandcountymrc.org
The website for the Northwest Straits Commission can be seen at <http://www.nwstraits.org/>

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