Mosquitoes May Cause

They're wild by nature.

UNIVERSITY PARK (Centre Co.) — Many animals raise their young during spring and summer. But if you come across a young animal, it's best to leave it alone, according to a wildlife specialist in Penn State's College of Agricultural Sciences.

"People often encounter wildlife, particularly young animals, in the spring," said Dr. Margaret Brittingham, assistant professor of wildlife resources. "Birds, fawns and rabbits are the most frequently encountered wildlife.

'People who try to help animals that seem to be wounded or abandoned have good intentions," she said. "But often they wind up doing more harm than good.'

'Many people see a young, flightless bird sitting alone and decide to help by taking it inside," Brittingham said. "Problems soon arise because baby birds are very difficult to raise.'

If you leave the bird where you found it, the parents will come to feed it. "It's easy to think that a bird that can't fly is in trouble,' she said. "In fact, young birds often leave the nest when they can't truly fly, but can do a hopping half-flight. If you put them back in the nest at this point, they'll hop right back out.'

If you're worried that a cat or other animal might get the bird, it's okay to place it out of harm's way in a bush. The adult birds will come back and feed it.

"If you can see the nest, you can put the young bird back in it,' Brigtingham said. "It's a myth that if you touch a baby bird the mother will never come back."

If you discover a nest that's tipped over or fallen, pick it up, put the young back in it and place it in the tree. You also can make an artificial nest from a small basket and hang it as close to the original nest as you can. The adults will find the young and return to feed them."

If a cat, dog or other creature kills the adult birds, the young birds may need help. "In that case, you may want to intervene — but if you try to raise the birds yourself, chances of success are slim," Brittingham said. "Take orphaned birds to one of the many wildlife rehabilitators around the state."

People also may find rabbit nests during spring and summer. "Rabbit nests usually are slight indentations in the ground covered with rabbit hair," Brittingham said. "People who come across a nest of baby rabbits often think the babies have been abandoned, but that's not so. Rabbits nurse their young only twice a day, early in the morning and late in the afternoon. The rest of the time the young rabbits are left by themselves. If you find a nest, don't disturb it.'

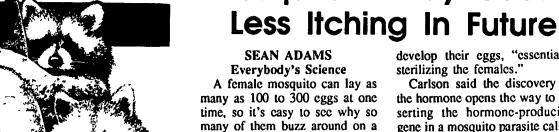
Brittingham notes that rabbits periodically return to check on their young. "If the nest has been disturbed, the adult rabbit will move it. Once my dog came upon a rabbit's nest. I got her away from it and left the nest alone. When we returned to that spot two hours later, the young already had been moved."

People also may find fawns in the woods. "Deer, like rabbits, leave their young alone for long periods of time," she said. "So if you come upon a young animal in the woods, don't immediately assume it's been abandoned. It's more likely that the adult will return later to tend the young.'

Brittingham also urges people to remember that you can be injured trying to aid wildlife.

"By handling wild animals, you put yourself at risk of being scratched, bitten or even contracting a disease," she said. "Raccoons, for instance, carry rabies at a high rate. Many people are exposed to the disease each year by having contact with a raccoon.

"The best policy is to leave wildlife wild," she said.



hot summer night. But U.S. Department of Agricultue scientists have discovered a hormone - produced by the mosquito itself - that prevents those eggs from hatching. That could mean a whole lot less itching and a new tool against malaria and other diseases transmitted by mosquitoes in foreign countries.

David A. Carlson of USDA's Agricultural Research Service said that in lab tests the hormone also sterilized biting midges, flies, and fleas. These insect pests, like mosquitoes, need blood for their eggs to develop.

Carlson, a chemist at the Medical and Veterinary Entomology Research Lab in Gainesville, Fla., said a synthetic chemical mimic of the oostatic hormone was injected into female mosquitoes. That hormone inhibited up to 98 percent of the eggs from forming. He said the hormone can also be fed to mosquitoes.

Within mosquitoes, he said, the hormone is present only during certain times in the insect's life cycle. If the hormone is put into the mosquito at the right time, it blocks the production of enzymes that female mosquitoes need to

develop their eggs, "essentially sterilizing the females.'

Carlson said the discovery of the hormone opens the way to inserting the hormone-producing gene in a mosquito parasite called a spiroplasma. These tiny parasites inhabit more than 100 insect and tick species, as well as some plants. Carlson said three species of spiroplasmas live on mosquitoes, but only one causes disease.

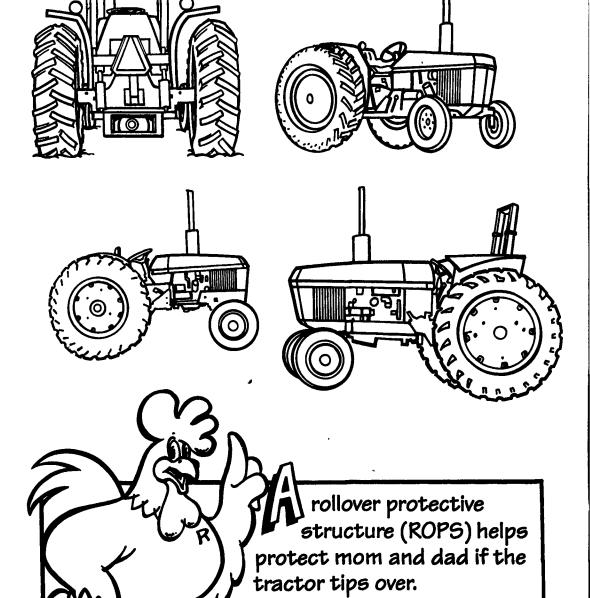
If the gene for oostatic hormone can be inserted into living spiroplasma, the spiroplasma could then be sprayed or applied in some other way on mosquitoes in the field, he said.

Carlson and Dov Borovsky, a chemist at the University of Florida, received a pair of patents in 1991 and 1992 on their discovery of the oostatic hormone and its specific chemical structure.

Carlson said the oostatic hormone works by shutting down the insect's production of a key digestive enzyme called trypsin, produced in the mosquito's gut. Researchers found that the hormone reduced trypsin production by up to 80 percent. "Without enough trypsin, the female cannot digest the blood that she takes in for food," he said. (Agricultural Research Service, U.S. Department of Agriculture)







Circle the tractors that already have a ROPS.

Then draw a ROPS on the tractors that don't have one.