

New plant, bugs sprout at Hanford

By JOHN STANG

Herald staff writer

Bladder pod plants usually bloom in May.

So botanists Kate Beck and Florence Caplow were puzzled when some bladder pods bloomed in July and August near Hanford's White Bluffs area.

"We became suspicious and did some research on them," Beck said.

The Bellingham-based botanists sent samples to a Harvard University expert.

And in November, the answer came back: They had discovered a new plant species.

"We were excited. It's a once in a lifetime opportunity to discover something new and unique," Beck said. "It's been quite a few years since a brand-new species has been found in Washington."

Actually, the plant isn't the only discovery.

Three new insect species also were discovered at Hanford's Fitzner-Eberhardt Arid Lands Ecology Reserve (ALE) this year.

Scientists doing the studies said more new species might surface.

None of the four discovered species has been named.



Photo courtesy of the Nature Conservancy

This is the new, yet unnamed plant discovered on Hanford's North Slope. It is in the genus *Lesquerella*, or bladder pod.

The U.S. Department of Energy and the Nature Conservancy announced the discoveries this week.

The Nature Conservancy just finished the first

year of a three-year study to inventory the plants, birds, insects and animals on noncontaminated parts of Hanford. The study was paid for by a \$810,000 grant from DOE.

Inventory scientists collected about 13,000 samples in 1994, with possibly up to 15 percent of the specimens cataloged so far, said Curt Soper, study coordinator for the Nature Conservancy.

The inventory found many types of insects and plants found elsewhere but not previously spotted at Hanford, Soper said.

Many specimens have to be sent to scientists across the nation to be studied.

So far, the study discovered the new plant, which is three to eight inches tall with silver hairs on it and yellow flowers.

The plant — a species in the bladder pod genus of the mustard family — apparently grows in a two-foot-wide strip more than one mile long in the southern part of Hanford's North Slope.

Why the plant grows in that narrow strip is unknown.

"That's a marvelous question to do some research on," Beck said. She speculated the soil's alkalinity might be a factor.

She made a "rough guess" that 500 to 1,000 plants are in the strip. And she speculated the

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plant could end up a candidate to be listed for protection under the federal Endangered Species Act.

Meanwhile, researchers headed by entomologist Richard Zack of Washington State University discovered three new insect species.

The three species appear to be related, and are in the leafhopper group, which feeds on plant juices.

Zack said the new insects look like cicadas but are one-tenth to one-fifteenth of an inch long.

"It's not unusual to find new species of insects, especially in other parts of the world which are not well studied," Zack said.

"In Washington, it is relatively unusual to find a new species. Our insects here are somewhat well-studied," he said.

Zack said many leafhopper insects are linked to specific plants, and many plants on the ALE are not found in great numbers elsewhere.

"Since a lot of these plants (on the ALE) have never been studied, we'll find a lot the insects there have never been studied. ... We expect to find several to many new species of insects," Zack said.

Zack said sorting through col-

lected insects, which often look very much alike, is slow, tedious work. Many specimens are shipped to outside experts who can find the subtle distinctions between separate species.

A leafhopper expert in Ottawa notified Zack that the ALE samples contained three previously unknown species.

Zack said more study is needed before determining if protective status should be sought under the Endangered Species Act.

Beck and Zack noted that Hanford — especially the ALE — is the most pristine area of shrub-steppe land left in the Northwest. And it is spot that most closely resembles what the

Columbia Basin looked like 200 years ago, they said.

Finding the insects and plants "gives us a window to what most of the area looked like back then," Zack said.

Insect research on the ALE is beneficial because many species feed on aphids and other pests that harm crops, Zack said. The ladybird beetle — plentiful on the ALE — is one of those species, he said.

Beck said plant research has led to advances in medicine.

The Nature Conservancy plans to expand the 1995 inventory to cover amphibians, reptiles and small mammals, Soper said.

When we camped out on the Columbia River, we (you) slept on those mutant plants ... just so you know.