

Invasive Knotweeds:

A growing problem in the Cowichan Valley

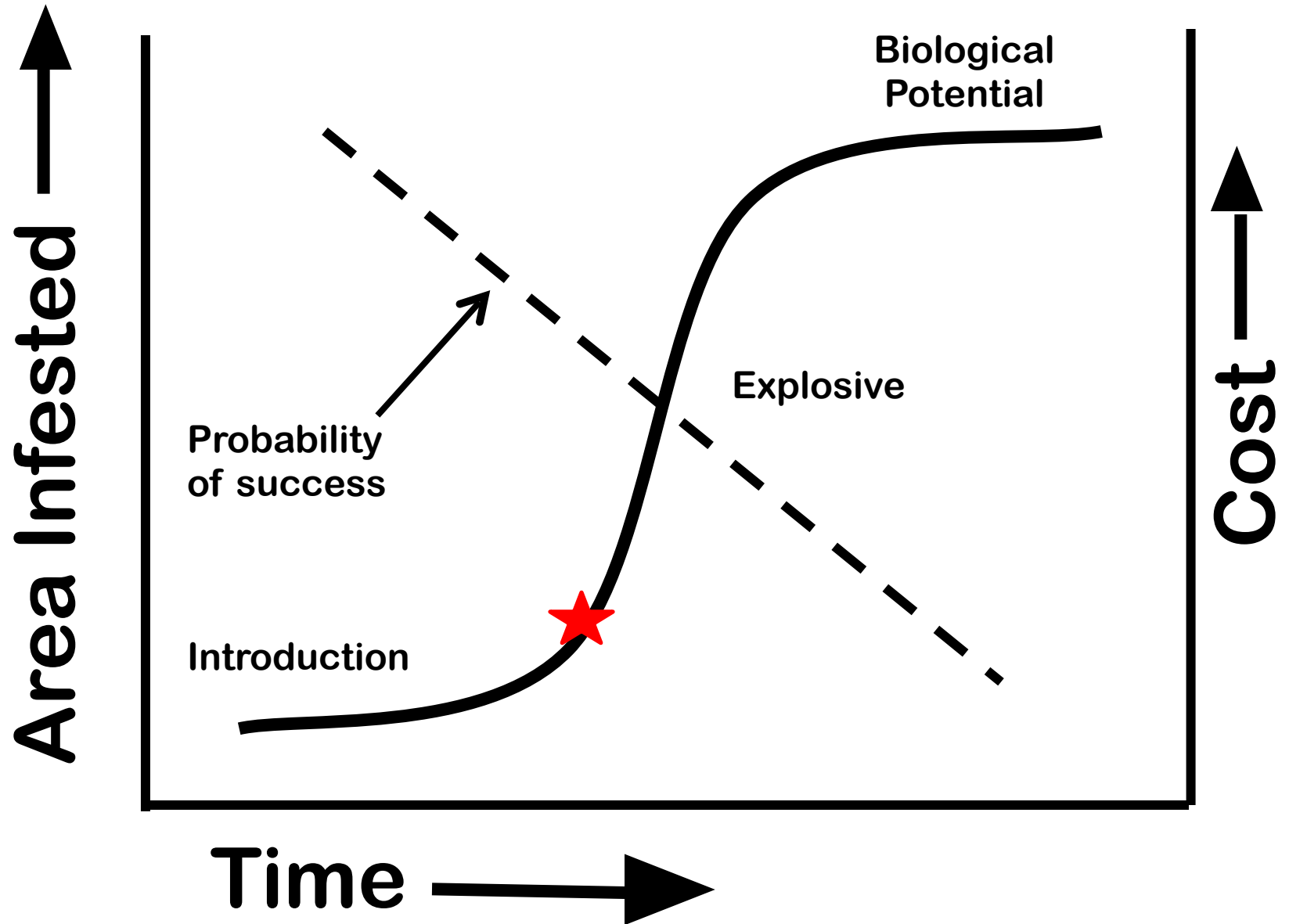
Japanese knotweed

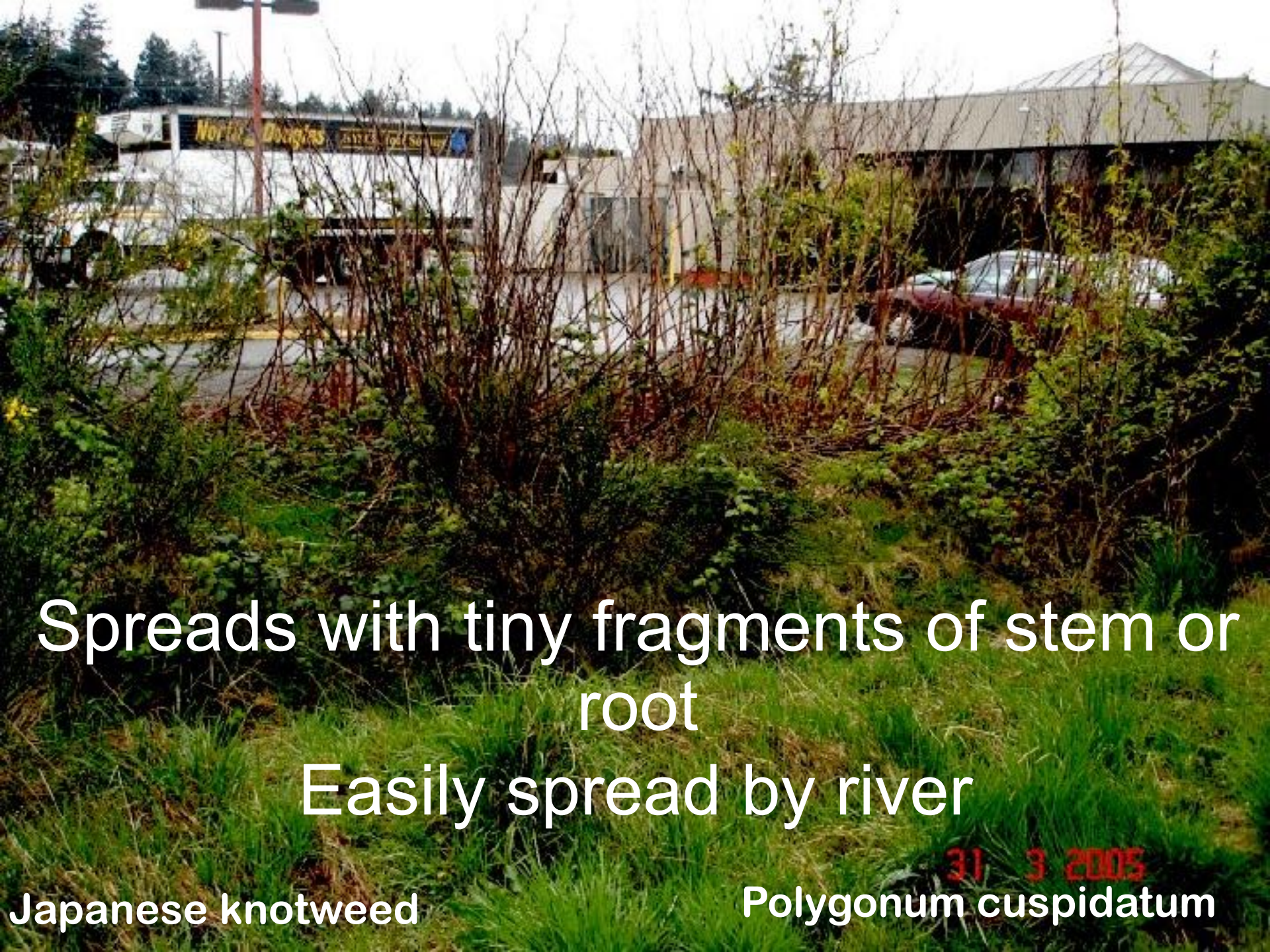
16 / 6 / 2006
Polygonum cuspidatum



Cowichan River could be taken over

Biological Invasions





Spreads with tiny fragments of stem or
root

Easily spread by river

Japanese knotweed

31 3 2005
Polygonum cuspidatum

These plants came in with a small
construction project



27 7 2005

Japanese knotweed

Polygonum cuspidatum



Movement of soil can spread plants

Japanese knotweed

18 9 2007
Polygonum cuspidatum

Battle between invasives – the knotweed will win...

Japanese knotweed
Himalayan blackberry

Polygonum cuspidatum
Rubus discolor

18 9 2007

Three species and one hybrid

Japanese Knotweed

Japanese knotweed

Polygonum cuspidatum

A close-up photograph of a Giant Knotweed plant. The image shows several large, heart-shaped green leaves with prominent veins. Some leaves have yellowish-brown spots, indicating damage or decay. A pair of black sunglasses is placed on a stem in the lower center of the frame to provide a sense of scale. The background is filled with more green foliage.

Giant Knotweed

Giant knotweed

Polygonum sachalinense

Giant – as the name implies.



Giant knotweed

Polygonum sachalinense

Himalayan Knotweed

Himalayan knotweed

Polygonum polystachyum



Hybrid between Japanese and Giant Knotweeds

A close-up photograph of the Bohemian knotweed plant. The image shows several large, heart-shaped (cordate) leaves with prominent veins. The leaves are a mix of green and reddish-brown, indicating autumn coloration. Several upright, branched inflorescences (panicles) are visible, bearing small, reddish-brown flowers. The background is filled with more of the same foliage.

Bohemian knotweed

Polygonum x bohemicum

A scenic view of the Sandy River in Oregon. The foreground shows a rocky riverbank with patches of green grass and small shrubs. The middle ground is dominated by a dense forest of tall trees, including several prominent evergreens and a large, leafless deciduous tree on the right. The background is a thick wall of green foliage. The text "Sandy River, Oregon" is overlaid in white at the bottom center.

Sandy River, Oregon




Sandy River, Oregon

A photograph of a massive, dense vine-covered plant, likely a giant reed or similar invasive species, with large, heart-shaped green leaves. A person stands to the right of the plant for scale. The background shows more trees and a clear sky.

Sandy River, Oregon



Salt water treatment on Haida Gwaii



Traditional treatments have involved
herbicides (e.g. Round-up =
Glyphosate)

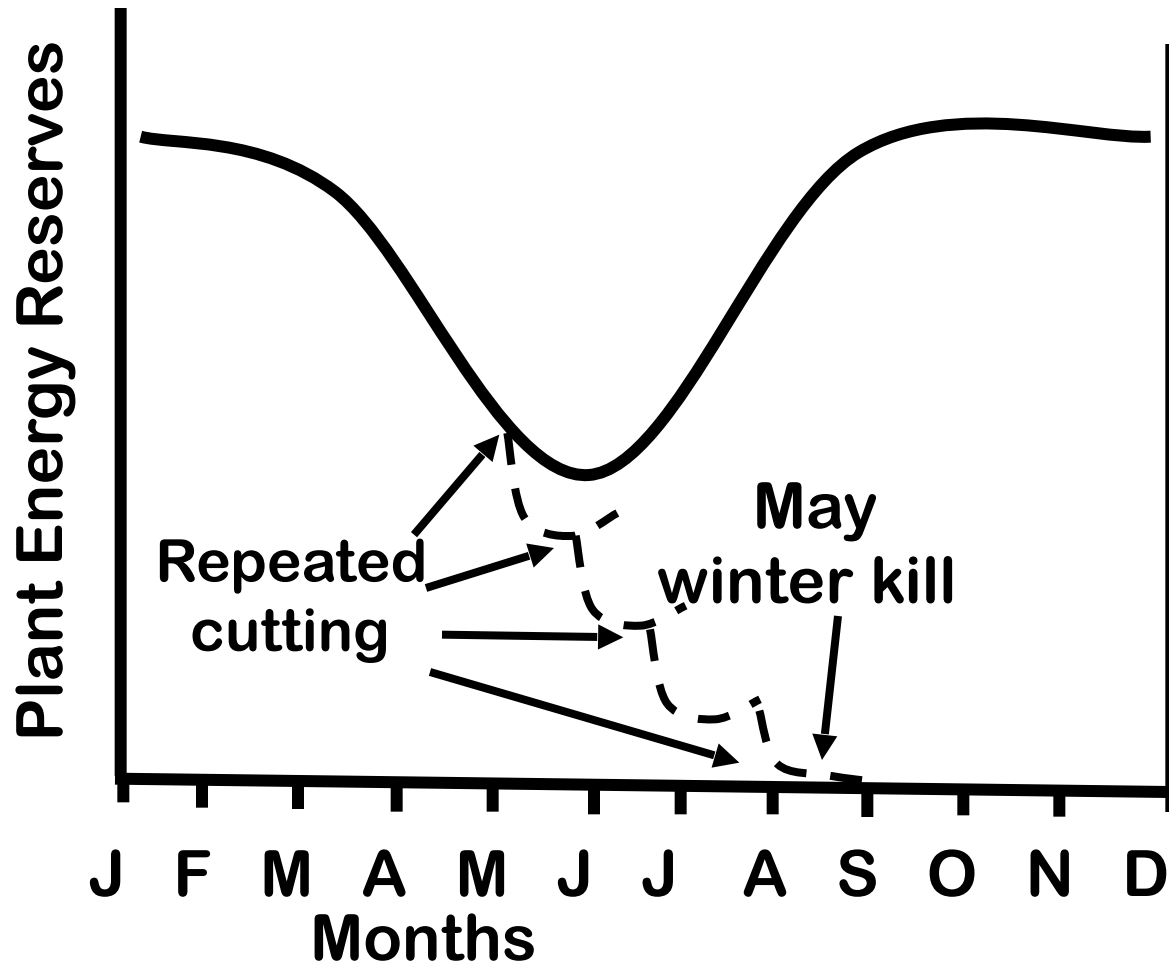
From *Coastal Invasive Species Committee*:

- The most effective way to win the knotweed battle is to use specially-selected herbicide.
- A product that can attack knotweed's extensive root system is required.
- Call a company with certified applicators. They can help you choose the appropriate treatment method for your property and get the job done safely.
- **There is no silver bullet with knotweed. Knotweed can take a few years of treatments to achieve control.**
- Be patient and committed to your treatment program and you can defeat this stubborn alien and protect your home.

A large, dense bush of knotweed with many bright green, heart-shaped leaves. The bush is overgrown and fills most of the frame. In the background, there are more trees and a utility pole. The text "An Ecologically Friendly Way of Treating Knotweed" is overlaid in white at the bottom.

An Ecologically Friendly Way of
Treating Knotweed

Attack the plant at its weakest point



Repeated cutting will kill the plant.



Initial cutting, May 21, 2011, Duncan



Initial cutting, May 21, 2011, Duncan

Cutting, June 11, 2011, Duncan





Cutting, June 11, 2011, Duncan

Cutting, July 7, 2011, Duncan



3 7 2011

Cutting, July 7, 2011, Duncan



Knotweed gone – November 17, 2015





2015 Koksilah Trials




Before Initial Cutting Treatment,
June 25, 2015



After Initial Cutting Treatment,
June 25, 2015




Before Second Cutting Treatment,
July 8, 2015



After Second Cutting Treatment,
July 8, 2015



Before Third Cutting Treatment,
July 24, 2015

A photograph showing a mound of dark, moist soil. Two blue jays are present: one is perched on the left side of the mound, and the other is on the right side, near a pair of pliers. The pliers have orange handles and black jaws. The background consists of green grass and foliage. In the bottom right corner, a small portion of a black and white dog's head is visible. The text "After Third Cutting Treatment, July 24, 2015" is overlaid in white at the bottom of the image.

After Third Cutting Treatment,
July 24, 2015



Before Fourth Cutting Treatment,
August 7, 2015



After Fourth Cutting Treatment,
August 7, 2015



Before Fifth Cutting Treatment,
August 27, 2015



After Fifth Cutting Treatment,
August 27, 2015



Before Sixth Cutting Treatment,
September 11, 2015



After Sixth Cutting Treatment,
September 11, 2015




Before Seventh Cutting Treatment,
September 28, 2015




After Seventh Cutting Treatment,
September 28, 2015



Before Eighth Cutting Treatment,
October 14, 2015



After Eighth Cutting Treatment,
October 14, 2015



End of the season,
Thanks Dave Lindsay!
October 14, 2015



Gravel bar site, June 25, 2015



After cutting, June 25, 2015

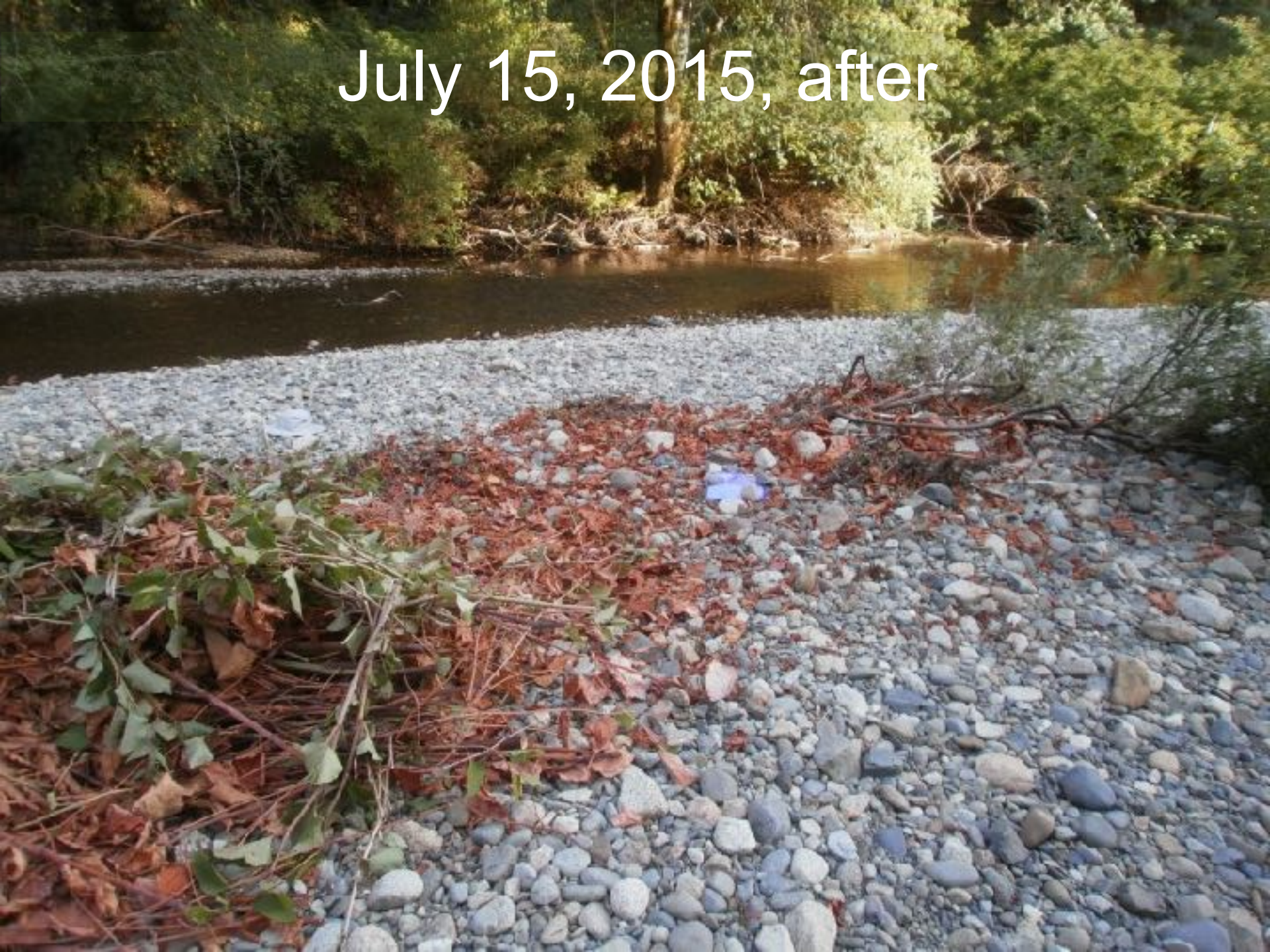
Decomposition of biomass



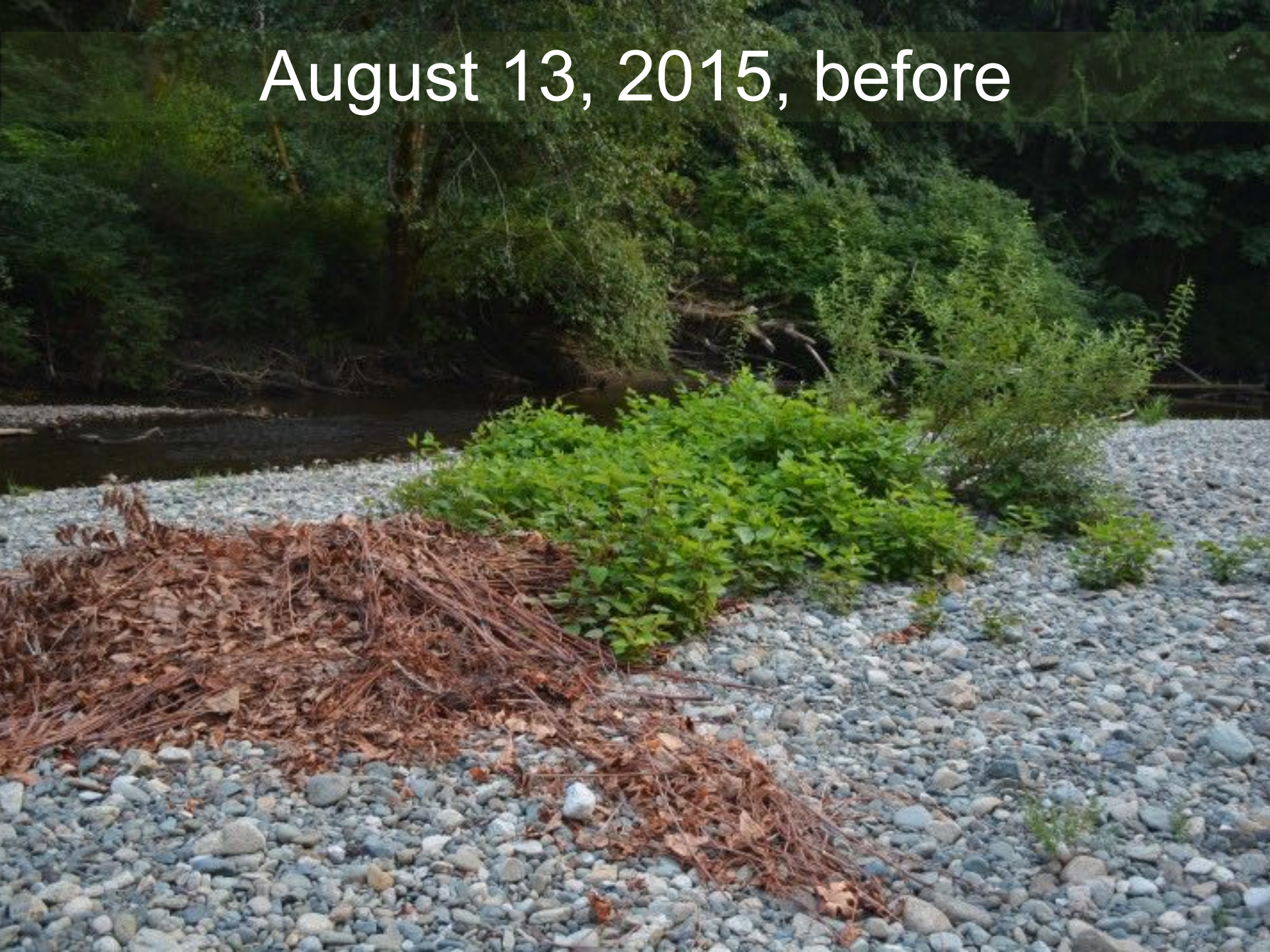
July 15, 2015, before



July 15, 2015, after



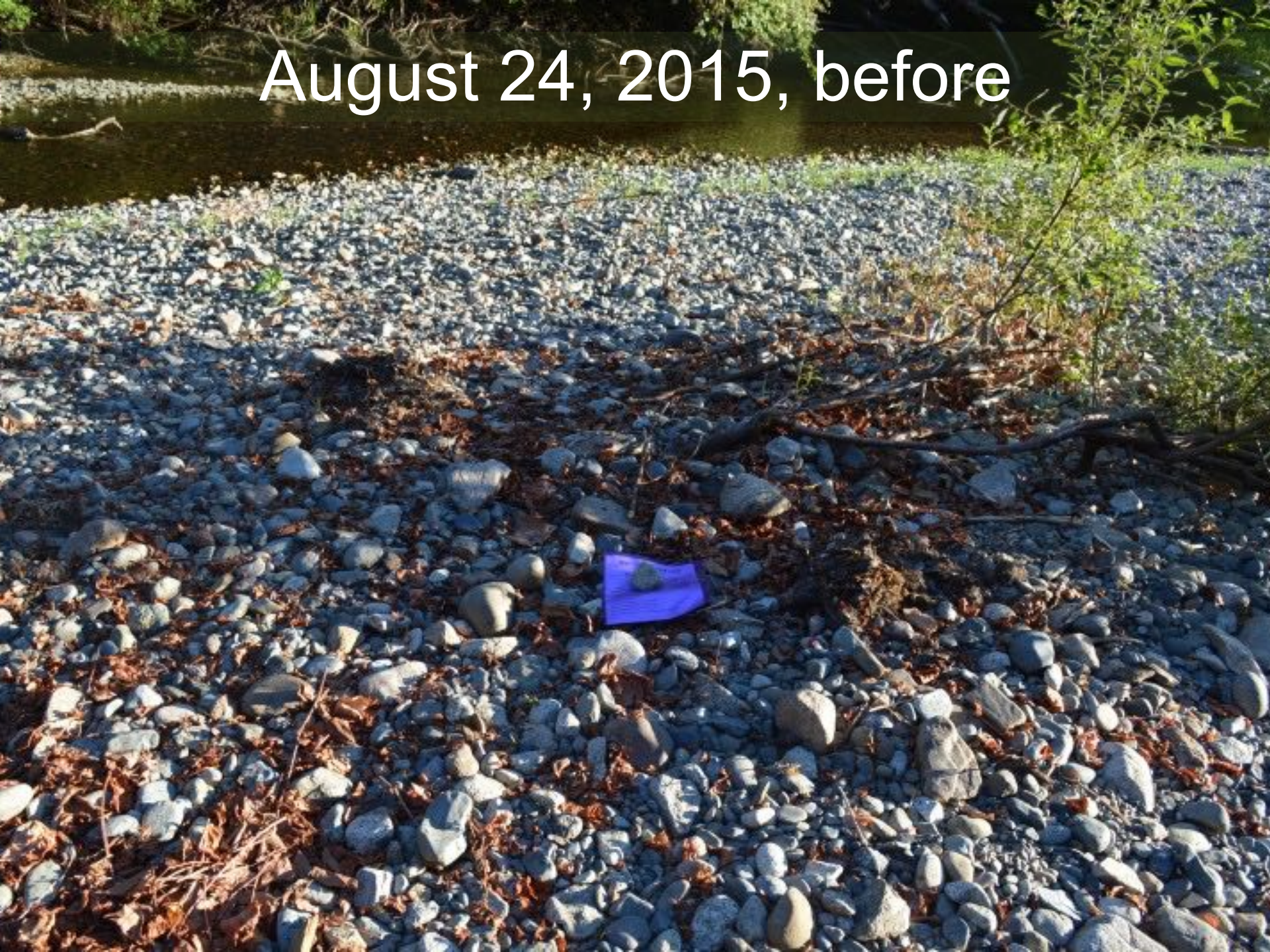
August 13, 2015, before



August 13, 2015, after



August 24, 2015, before



August 24, 2015, before

**KNOTWEED CUTTING
TRIALS:
CITIZEN SCIENCE
AT WORK**

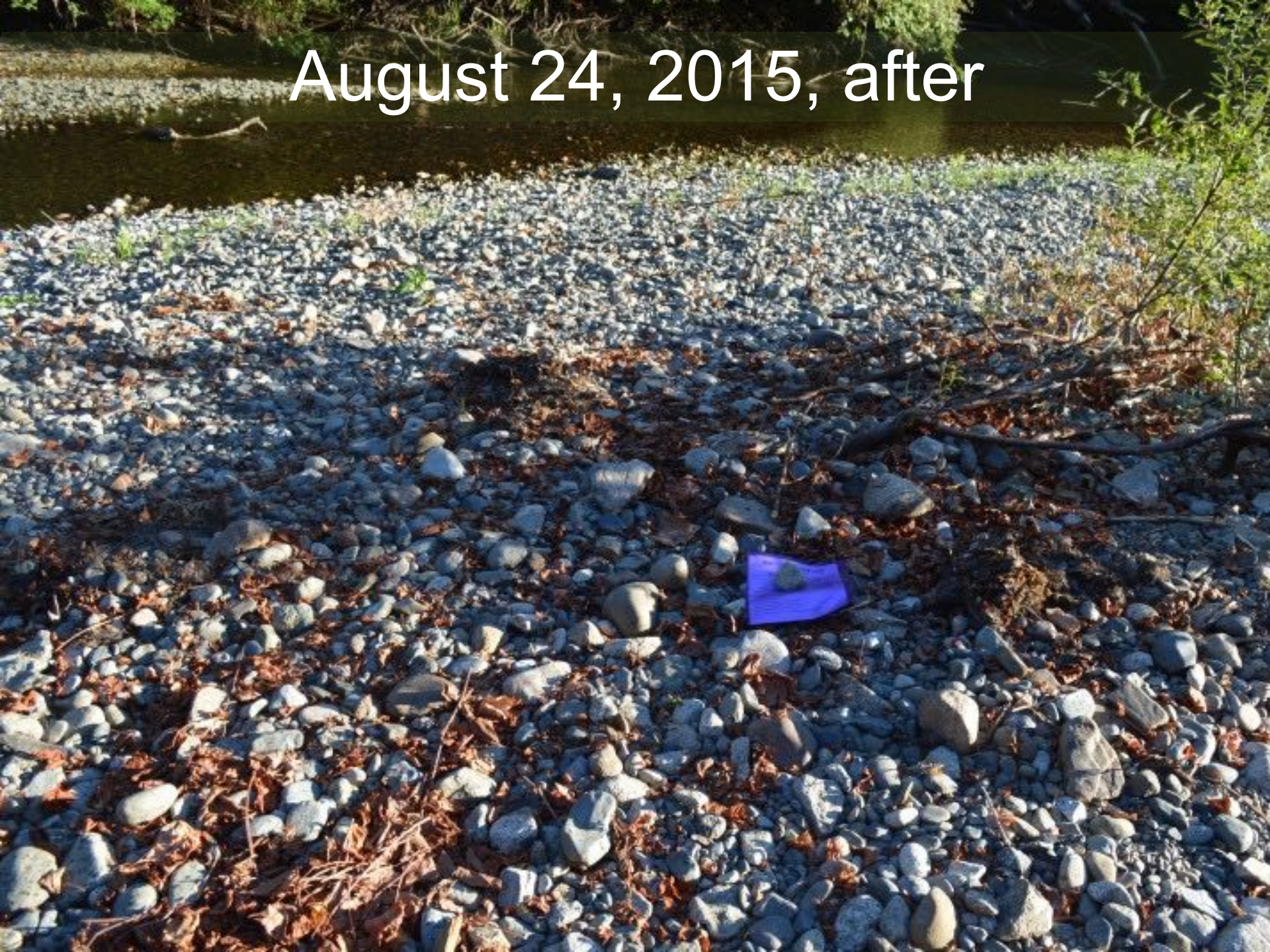
Please do not disturb this plant,
which is knotweed and very invasive.
We are doing a trial of cutting this
patch every two - three weeks to see
if this is a successful technique
versus using Roundup (glyphosate).

Further information:

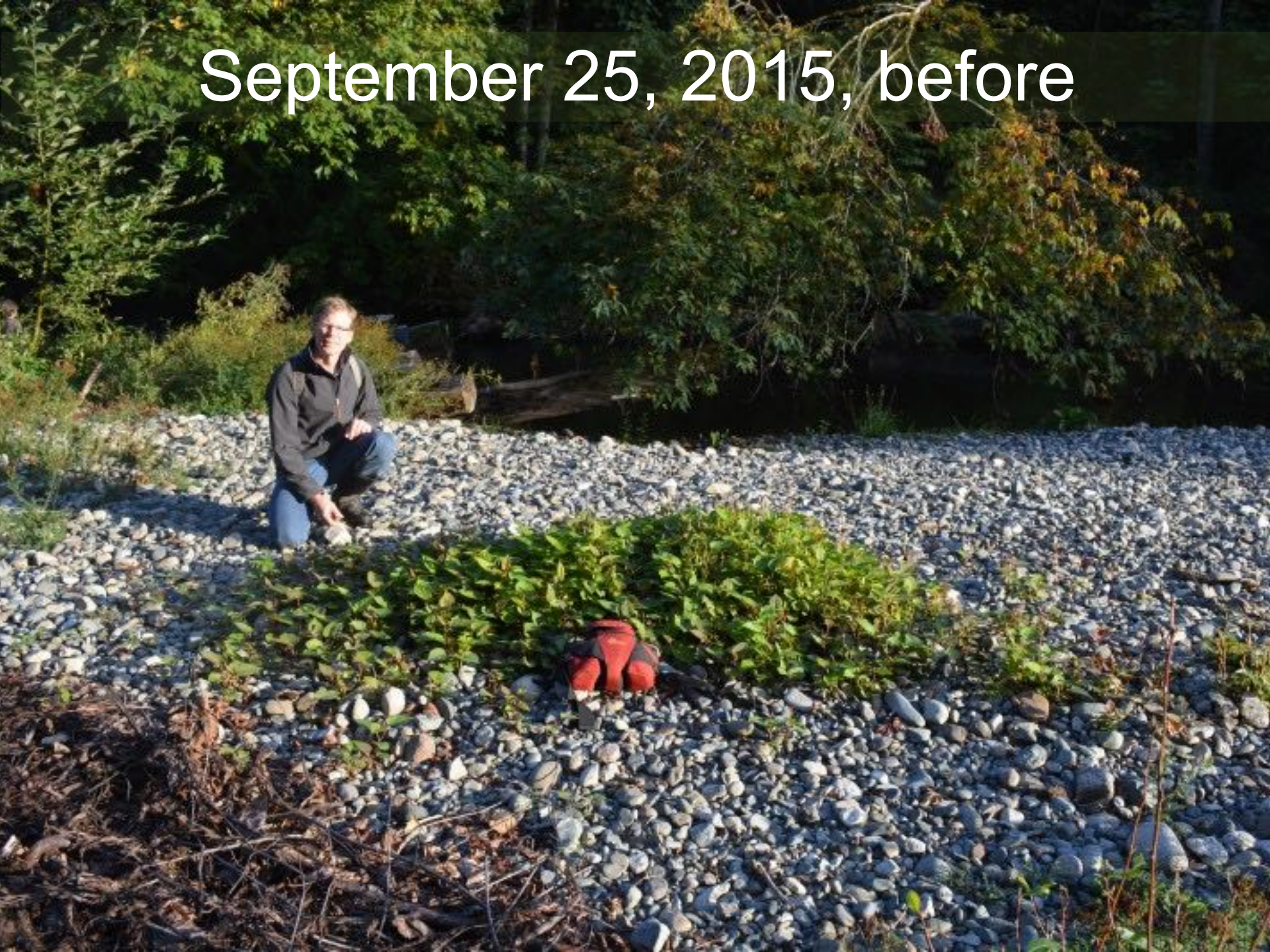
Genevieve Singleton or David Probert,
Parker Environmental Services Ltd.
info@parkerenv.com 01273 824052

Chel Agency for Consultants 01274 661456

August 24, 2015, after



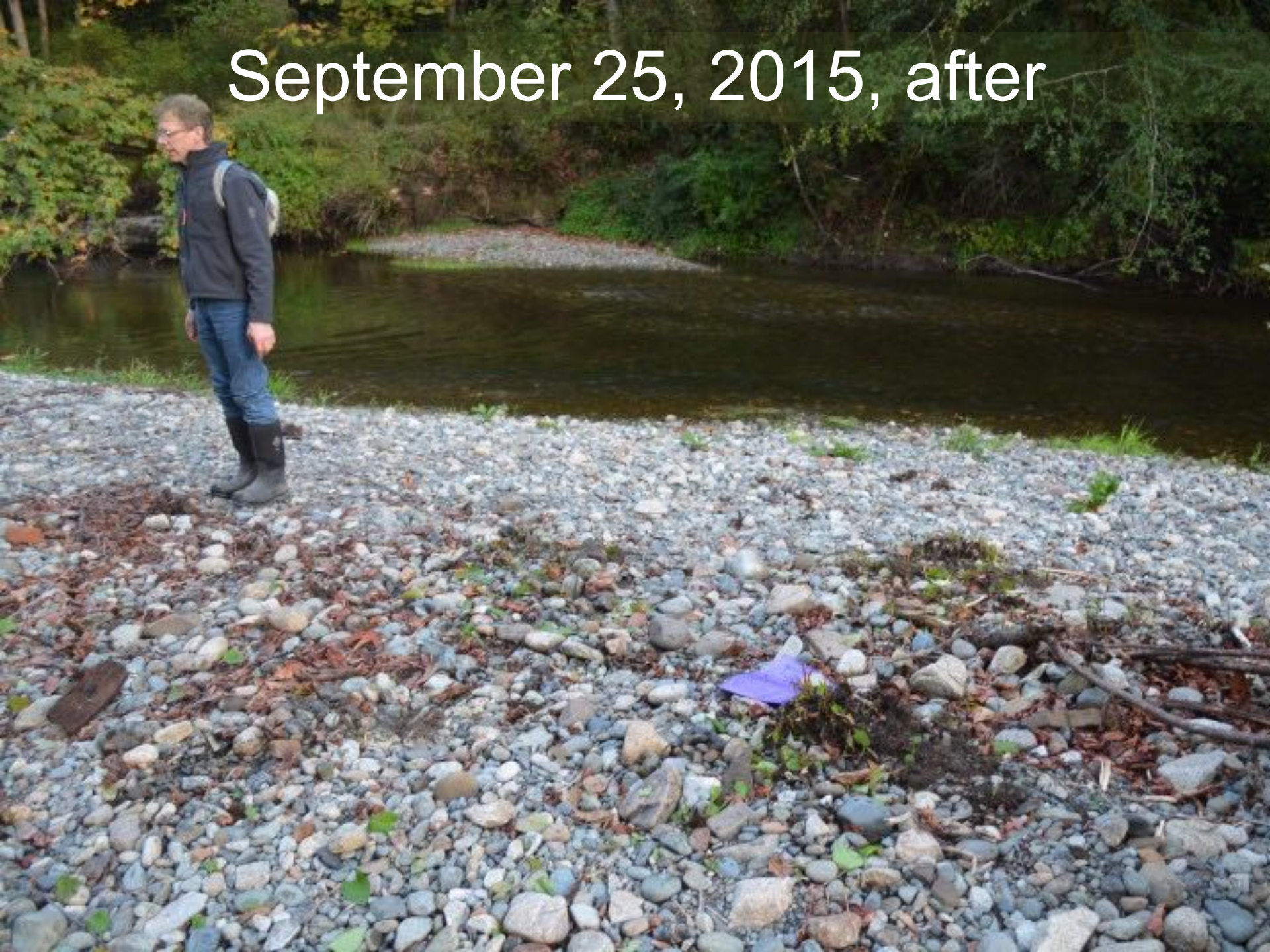
September 25, 2015, before



September 25, 2015, before



September 25, 2015, after



October 9, 2015, end of season,
Thanks Cheri Ayers



In Summery:

1. Cutting does work (will monitor in the spring);
2. Cut materials can dry and die in the summer sun in location;
3. Watch out for runners trying to escape;
4. Need a large scale operational trial; and
5. Need to secure funding.

Strategy to Remove Knotweed from the Cowichan River Corridor

Hire 3 or 4 third year biology students

Starting May 15th, map all locations of knotweed along the river

Starting June 15th, cut all knotweed sites

Continue cutting every 2 weeks until October.

Repeat this process with 2 students the following year