

Weed Alerts! 2010

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Aquatics

Didymo, also called “rock snot,” (*Didymosphenia geminata*)



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August 31, 2010

Rock Snot in California a Bane to Anglers and Mystery to Science

From this story in the *Sacramento Bee*:

*On a sunny stretch of the Bear River near Colfax, the cool water carries a nasty surprise for swimmers and fishermen. Look closely at the water flowing by. It carries clots of a feathery substance that looks like shredded toilet paper. Step into the gravelly shallows. Your feet will scream at you to get out of the sewage spill. But this isn't sewage. About 10 miles of the Bear River below Rollins Reservoir is infested with a strange algae called "didymo," short for its scientific name, *Didymosphenia geminata*. The algae's slang name describes the species better: "rock snot."*

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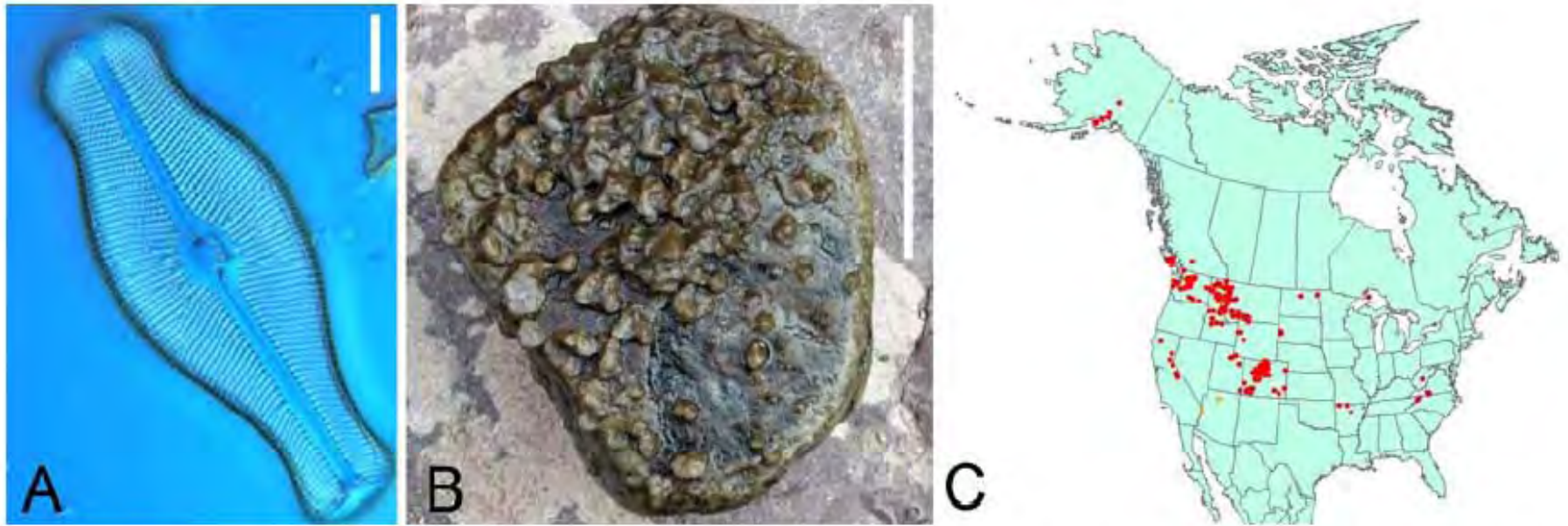


FIGURE 1. **A.** Image of *D. geminata* cell under the light microscope. Scale bar is equal to 10 microns. **B.** Cobble from stream showing typical growth habit. Scale bar is approximately 10 cm. **C.** Map showing the confirmed distribution records of *D. geminata* in North America.

- Extraordinary capacity to impact stream ecosystems on a global scale.
- Streams in New Zealand, North America, Europe, and Asia infested in large masses
- Diatom dominates stream surfaces covering up to 100% of substrate with thicknesses >8 in
- Can be spread in a single drop of water
- Expanding geographic range in North America.
- Associated with cold, fast flowing, nutrient-poor waters
- Major vector of spread appears to be contaminated felt soles of boots used by fly fisherman

Disk waterhyssop (*Bacopa rotundifolia*)



Disk waterhyssop (*Bacopa rotundifolia*)

- Well known as a rice weed
- Invading deeper, longer ponding duration vernal pools at Beale AFB
- Pools close to rice fields (within ½ mile)
- Creates almost a continuous mat of vegetation with cover approaching 100% and appears to be excluding many species of “typical” vernal pool plants.
- Reported by Matt Wacker

Broadleaf species

Fertile capeweed, *Arctotheca calendula*



Sterile capeweed, now thought to be
(*Arctotheca prostrata*)



Mahoney and McKenzie. 2008. Madroño, 55:244-247.

- *Arctotheca prostrata* is a sterile perennial that spreads aggressively by prostrate stems along roadsides and disturbed sites in the North Coast, South Coast, Central West, and Western Transverse Ranges.
- *Arctotheca calendula*, a fertile annual classified as invasive by the Cal-IPC, occurs in a few coastal and disturbed urban habitats in the North and Central Coast, and Outer South Coast Ranges.

Arctotheca calendula

- A 4,248 acre area in southwest Stanislaus County infested with capeweed in 2007.
- CDFA "A" rated weed along the road side by a Stanislaus State University. The 2007 infestation is on 7 different partials (5 almond orchards and 2 vineyards as well as some roadside areas).
- Surveys in 2010 identified an additional 129 acres of almonds on three new sites.
- The concern with the 2007 infestation is that it will spread to nearby rangeland areas and become established.



Arctotheca calendula in Stanislaus Co.

Reported by Milton O'Haire

Globe Chamomile (*Oncosiphon piluliferum*)



Globe Chamomile

(Oncosiphon piluliferum)

- Annual plant introduced from South Africa.
- Cultivated by the Desert Botanical Garden in Phoenix, Arizona and by the Boyce-Thompson Arboretum. Has escaped cultivation and is crowding out native species and spreading very rapidly across Arizona.
- Not yet listed as an invasive weed species.
- Does not have fruit.
- Urban weed and along roadsides and other disturbed areas.
- Reported by Jason Giessow
- San Diego County: San Dieguito watershed. Approximately 10+ acres from ag field edges into and through riparian habitat (willow scrub). First observed in 2009 and expanding range.

Woody species

Bladderflower (*Araujia sericifera*)



Bladderflower

(Araujia sericifera)

- Spreading on the Gaviota Coast.
- Listed as part of the Arundo removal project, but incorrectly referred to as "kudzu"
- Common ag weed in Carpinteria, but on the Gaviota Coast it is invading into natural areas (specifically riparian areas)
- Also reported on Santa Cruz Island
- CDFA "B" rated regulated noxious weed
- Reported by William Abbott and David Chang



Callery pear (*Pyrus calleryana*)



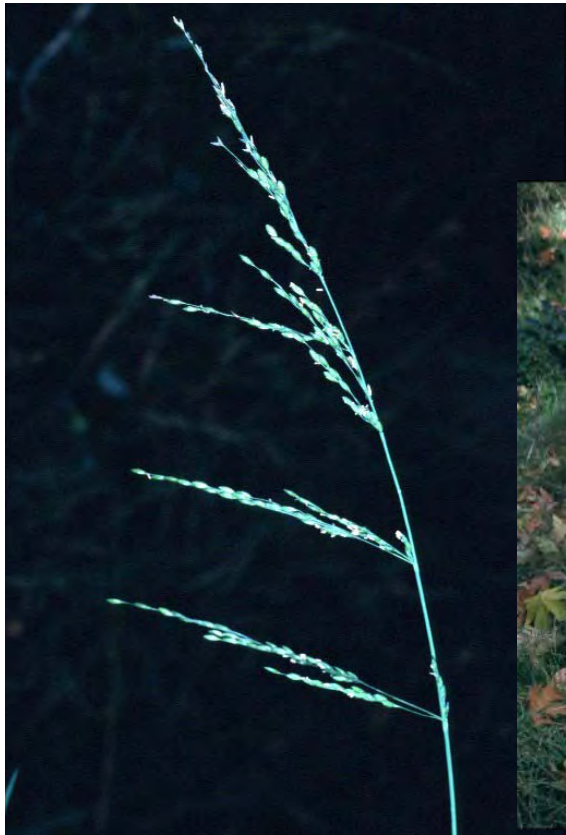
Callery pear

- Becoming abundant around the drainages and riparian areas of Central Valley preserves
- Increasing its presence in last 5 years
- Reported by Sally Bartindale and Tara Collins

Other species reported

Erect veldtgrass (*Ehrharta erecta*)

- On list for 2009
- Populations exploding on Russian River in Sonoma Co.
- Reported by Victoria Wikle





Stinkwort (*Dittrichia graveolens*)
Asteraceae – Sunflower family

- Late season annual
- Few studies conducted
- Weed Alert 2004, on list in 2009





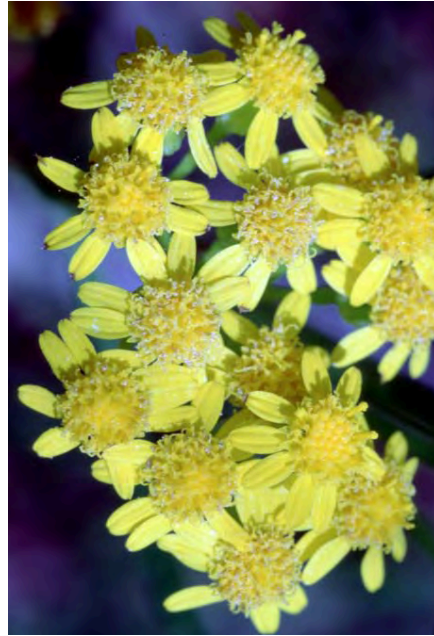
Ward's weed (*Carrichtera annua*)



- Three known locations in San Diego Co (Jessie Vinje property and Camp Pendleton)
- Comprises approximately 95-99% of the cover in one location
- Seed bank appears to be long lived and very large
- All involved parties are actively working to eliminate it
- 2007 Weed Alert

Reported by Jessie Vinje

Fireweed groundsel (*Senecio linearifolius*)



- New populations in Carlsbad
- Occurrences now appearing in San Diego and Camp Pendleton
- Likely poisonous like other *Senecio* spp.

Spreading pellitory (*Parietaria judaica*)

- Mainly an urban weed
- Now being reported to invade a few creeks in the Bay Area
- Flourishes in deep permanent shade to almost full sun, moist to even dry soils, fresh to salty areas, mainly in rock crevices
- Reported by Susan Schwartz



Carnation spurge
(*Euphorbia terracina*)



- On list from last year.
- Originally reported in large numbers in Malibu.
- David Chang reports invasions near Carpenteria and also was reported along Gaviota coast west of Carpenteria.

