Summary of Giant Salvinia Spraying Activities on the Palo Verde Irrigation Drain, 2011
Background

- Giant Salvinia (*Salvinia molesta*) is a invasive aquatic fern native to Brazil.
- It was discovered in Arizona and California on the lower Colorado River in April 1999 near Blythe, CA.
- The Arizona Fish & Wildlife Conservation Office, Parker (AFWCOP) was contracted in 2004 to spray salvinia in the PVID drainage.
- Impacts, irrigation, hydroelectric facilities, recreational activities, waterfowl by denying them places to forage and roost, and fish by decreasing levels of DO
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Herbicides used:

- Diquat @ 0.7% conc.
- Glyphosate @ 0.7% conc.
- Silicone surfactant
- This year, a total of 48 gallons of diquat, and 48 gallons of glyphosate was applied on the Palo Verde drain.
Giant salvinia control techniques

Herbicide treatment
  • boat application
  • shoreline application

Biological control
  • Salvinia Weevils – USDA
Biological Control

Photograph by R. Chan
In 2011, three reaches were treated:

- Reach 3 - 35th avenue to the Hwy 78 crossing.
- Reach 4 - Hwy 78 crossing to the northern border of Cibola NWR.
- Reach 5 – Northern boundary of Cibola NWR to Walters Camp
Herbicide Spraying on the Palo Verde Drainage
Weevil Release
North of Walters Camp
PVID Salvinia Survey

PVID Salvinia Survey August 9, 2011

Total Salvinia: 1377 Sq. meters

Legend
August 9, 2011
Size_Class
- <0.5 Sq. meters
- 0.5-1 Sq. meters
- 1-4 Sq. meters
- 4-16 Sq. meters
- 16-36 Sq. meters

Water's Camp
H-78 Bridge
PVID

Reach 1: 0 Sq. meters
Reach 2: 0 Sq. meters
Reach 3: 0 Sq. meters
Reach 4: 0.8 Sq. meters
Reach 5: 1377 Sq. meters
Reach 5
Summary

- 3 reaches of PVID drain were sprayed in 2011 totaling 66 miles.
- Levels of the various herbicides did not exceed CA standards for the drain.
- Removed from Estes and Brown Drains.
Recommendations FY12

- Coordination with National Wildlife Refuges to collaborate on challenges regarding the control of giant salvinia.
- Introduction of the salvinia weevil to inaccessible areas
Questions