

Release and Establishment of Insect Biological Control Agents for *Hydrilla verticillata*

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The search for insect biological control agents of *Hydrilla verticillata* began in 1980. After seven years of overseas searches and quarantine testing, the first biocontrol agent, a weevil from India (*Bagous affinis*) was approved for release in the United States. The larvae of this weevil feed on hydrilla tubers during dewatered periods. The establishment of this insect has been difficult because most of the areas that contain hydrilla in the United States are not subjected to a dewatered period. The second insect released was *Hydrellia pakistanae*, an ephydrid fly from Pakistan. The larvae of this fly, mine the hydrilla leaves. *H. pakistanae* has been released in four states and is well established in Florida. The next insect released was another fly, *Hydrellia balciunasi*, from Australia. The larvae have a similar feeding pattern to *H. pakistanae*, feeding on the internal leaf material. This insect has been released in 2 States, and populations are beginning to develop. The most recent insect to be released was a weevil, *Bagous* n. sp., from Australia. This insect feeds on the leaves and stem of hydrilla. It was first released in 1991 in limited areas of Florida.
