

# East Indian Hygrophila, *Hygrophila polysperma* (Roxb.)

T. Anderson<sup>1</sup>

David W. Hall, Vernon V. Vandiver, and Cody J. Gray<sup>2</sup>

## Classification

Common Name: East Indian Hygrophila

Scientific Name: *Hygrophila polysperma* (Roxb.) T. Anderson

Family: Acanthaceae, Acanthus Family

## Seedling

No seedlings have been seen ( ).

## Mature Plant

East Indian Hygrophila is an aquatic annual and is sparsely hairy with both aquatic and emergent stems (Figure 2). The aquatic form has opposite, elliptic to oblong leaves to 4 cm long. The emergent form differs in having smaller, narrower and darker leaves. The flowers are stalkless in the leaf axils of the emergent stems and are surrounded by two hairy modified leaves 5-15 mm long. The outer portion of the flower (sepals) is green, hairy and divided nearly to the base. The inner portion of the flower (petals) is blue to white, hairy and up to 9 mm long. The fruit is a capsule to 9 mm long covered with hairs especially near the top.



Figure 1. East Indian Hygrophila, *Hygrophila polysperma* (Roxb.) T. Anderson

## History

The Greek generic name *Hygrophila* means water-loving. The Greek word *polysperma* means with many seeds. First collected in Florida in the mid-1960s, East Indian

1. This document is SP 37, one of a series of the Agronomy Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Original publication date May 1991. Revised February 2006. Reviewed January 2012. Visit the EDIS website at <http://edis.ifas.ufl.edu>.
2. David W. Hall, former extension botanist, Herbarium, Florida Museum of Natural History; Vernon V. Vandiver, associate professor emeritus, Agronomy Department; Cody J. Gray, assistant professor, Ft. Lauderdale Research and Education Center; Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.



Figure 2. Mature plant, East Indian Hygrophila, *Hygrophila polysperma* (Roxb.) T. Anderson

Hygrophila has reportedly been of sufficient density to cause problems only during the past four years.

## Habitat

In Florida this weed is found in scattered locations south of Orlando. It is found also throughout India in wet areas to an altitude of 1600m and in Indo-Malaysia. It was introduced to Florida from cultivation.

## Biology

East Indian Hygrophila is doubtlessly spread from its use as an ornamental plant by the aquarium plant industry. Plants range in color from the light green of juvenile specimens to the dark green mature plants frequently with purple tips. Rooted in the hydro-soil, dense stands of shoots are produced with elongated nodes and large leaves which will extend upward to the water surface from depths exceeding 3 m. Emergent shoots have smaller, more compact, darker green leaves and shorter internodes. When rooted on moist banks the shoots are only 15-20 cm tall. If submersed the emergent shoots will drop their leaves and produce new leaves of the underwater type. Elongation of shoots begins with the increase in water temperature around March. Shoots reach the surface in late spring. During the summer, fragments with numerous adventitious roots break away from the mats. Upon contact with soil they will readily root. During the hot weather of late August the whole shoot will break off near the root crown. These shoots form large, heavy, floating mats which can cause severe water flow problems. The whole mat can sink and produce a new colony, or individual pieces can do so. The old root crowns

quickly produce new shoots which grow slowly during the winter. Hygrophila is difficult to control with available herbicides. It is much more difficult to control than Hydrilla and requires higher rates of herbicides. In mixed stands of Hydrilla and Hygrophila, herbicide treatments to control Hydrilla will select for Hygrophila resulting in less competition for Hydrilla.