



Ichetucknee Springs State Park

River Ecosystem Health and Proposed Changes to Recreational Uses on the Upper Ichetucknee River

Overview of Ichetucknee Springs State Park

Ichetucknee Springs State Park, a flagship unit of the Florida Park Service, encompasses 3.5 miles of the Ichetucknee River, a pristine spring-run stream supplied by eight major springs as well as numerous seeps. At the headwaters of the river, the park provides recreational access to two picturesque first-magnitude springs – Ichetucknee Head Spring and Blue Hole.

The Ichetucknee River is defined by two distinct sections:

- Upper Ichetucknee – extending from the main headspring/North Launch to Midpoint
- Lower Ichetucknee – extending from Midpoint to South Take-Out

Submerged Aquatic Vegetation

Along both the upper and lower sections of the river, over 20 species of submerged aquatic vegetation (SAV) have been identified:

- 6 dominant SAV species are consistently documented during DRP's SAV monitoring
- Dominant species of submerged aquatic vegetation include **springtape** (*Sagittaria kurziana*), **American eelgrass** (*Vallisneria americana*), **creeping primrosewillow** (*Ludwigia repens*), **wild rice** (*Zizania aquatica*), **spring-run spiderlily** (*Hymenocallis rotata*) and **pennywort spp.** (three species: *Hydrocotyle umbellata*, *H. verticillata*, *H. ranunculoides*).

Additional routinely documented submerged aquatic vegetation includes **water hemlock** (*Cicuta maculata*), **Watercress** (*Nasturtium spp.*), **southern water nymph** (*Najas guadalupensis*), **coontail** (*Ceratophyllum demersum*) and **water spangles** (*Salvinia minima*).

- Two historically important and once dominant SAV species, namely **twoleaf water-milfoil** (*Myriophyllum heterophyllum*) and **muskgrass** (*Chara zeylonica*) have nearly disappeared from our DRP transects since 1997. With the decline of these species, they currently have extremely low representation in the overall aquatic vegetation profile but are still scattered throughout the Upper Ichetucknee.



Studying Ecosystem Health

The park evaluates the health of the Ichetucknee River ecosystem by conducting transect studies. Results of these transect studies indicate the historical distribution and locations of impacts to submerged aquatic vegetation:

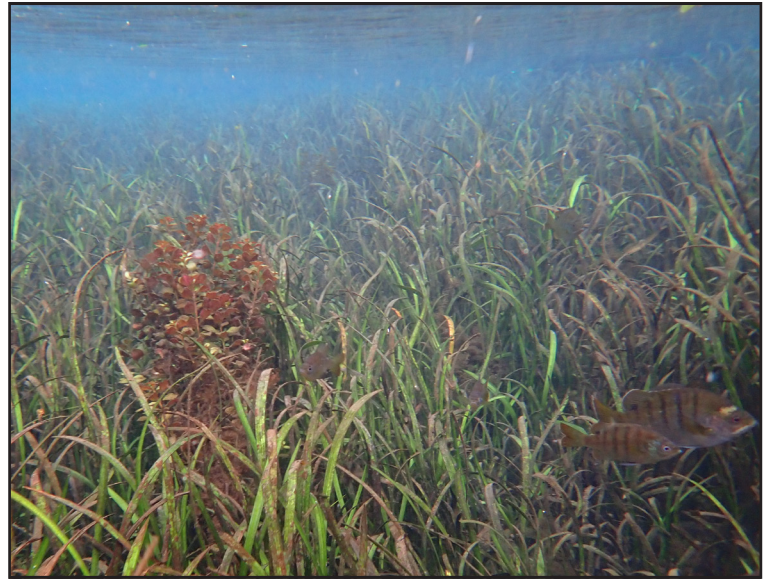
- Since ecological studies of the Ichetucknee River began in the early 1970s, the most consistent observation is that impacts occur most heavily along areas of shallow river bottom and within river bends where visitors tend to congregate and trample vegetation.
- Since 1998, significant declines have occurred among formerly dominant species, especially muskgrass and twoleaf water-milfoil.
- Since 2002, the river has experienced significant increases in species favoring high nutrient content, southern water nymph, coontail and water spangles, have increased in some locations.
- In 2003, submerged aquatic vegetation covered about 78% of the Ichetucknee River bottom. This represented a 353% (23-acre) increase from when Charlie DuToit conducted a carrying capacity study in 1978-79, when the park had very few restrictions on visitation.
- Ongoing studies through 2019 have continued to show similar trends and declines.

Recent Trends

Absence of tubing during the 2019/2020 winter season and access closures for public health reasons during the COVID-19 pandemic have resulted in a remarkable recovery of submerged aquatic vegetation on the Upper Ichetucknee River.

Recently compiled datasets, including results from 2020 river transect studies have demonstrated the positive ecological effects of reduced recreation on this spring and river system, giving the Florida Park Service a new opportunity to restore a major aspect of the ecology and natural beauty of the Ichetucknee.





Opportunities for Ecosystem Recovery

Regional factors, in addition to direct visitor impacts, are known to adversely affect the Ichetucknee River ecosystem. Long-term basin management planning efforts beyond the park boundary can help improve the health of the river ecosystem.

- Increased nitrates and phosphates in the Ichetucknee watershed, originating from septic tanks and regional agriculture, reducing water clarity, altering water quality for the healthy growth of submerged aquatic vegetation, and proliferating nuisance aquatic algae.
- Decreased water flow in the Ichetucknee River as a result of regional groundwater consumption.

Near-term solutions for improving the ecological health of the Ichetucknee River can be addressed within the park boundaries by modifying the ways visitors access and experience the river. Based on 50 years of ecological and visitor use studies, the Florida Park Service will:

- convert access to the Upper Ichetucknee River to paddlecraft only, entering from North Launch, with a carrying capacity of 100 vessels per day
 - *paddlecraft defined as canoes, kayaks, and paddleboards*
 - *swimming on the Upper Ichetucknee is not allowed (no change from previous park rules)*
- continue facilitating tube launches on Lower Ichetucknee from Midpoint to South Take-Out
 - *Midpoint will be the new starting point for tubes on the Ichetucknee River.*
 - *Where the carrying capacity below Midpoint has been 2,250 tubes per day, the daily number will increase to a maximum of 3,000 tubes per day to absorb the former tubing of the Upper Ichetucknee.*
 - *Daily tube launches from Dampier's Landing will be unlimited.*

These recreational access changes are planned to take effect May 2021 and continue for the perpetual protection of the Ichetucknee River ecosystem.