

## James River Geography

Welcome to NOAA's James River Interpretive Buoy, located at latitude 37 degrees 12.25 minutes North, longitude 76 degrees 46.65 minutes West. It lies off Jamestown Island about a quarter-mile south of Captain John Smith's statue, where he can see it well as he looks out over the river. This buoy is anchored in 43 feet of water at the edge of the narrow shoal that runs along the island. The river's channel is deep here, as the James narrows down between Swanns Point on the south and Jamestown on the north, but it quickly shoals as it sweeps through the broad meander curve from Cobham Bay around Hog Island and down toward Burwell Bay. The buoy lies about thirty miles above the mouth of the James at Hampton Roads.

Jamestown Island lies at a transition point on the James. Five miles upstream is the mouth of the Chickahominy River, which adds a strong current of fresh water to the heavy flow already coming out of the James watershed from deep in Virginia's uplands, the mountains at the eastern edge of the Alleghany Plateau. In wet years, the water here is nearly fresh.

The mouth of the James, however, lies close to the Chesapeake's mouth, so salt water can also flow upriver with the tides. In John Smith's time here, the region suffered a multi-year drought, so the river and the colonists' drinking water was probably brackish, an irritating factor that may account for some of the bickering and poor health that plagued them. The marshes on the back side of the Island also provided a healthy population of mosquitoes and other biting insects to harass the colonists.

But the salt provided a great benefit, especially when combined with the curving shape of the river channel, which creates strong eddies over the shallow, hard-bottom lumps between Burwell Bay and Hampton Roads. These conditions provided near-perfect habitat for oysters, crabs, and fish like Norfolk spot and croakers, which the Natives depended on as important sources of food, and which the English eventually learned to harvest. Meanwhile, the fresher waters, marshes, and swamps upriver provided sturgeon, waterfowl, and furbearers like beavers.