**Table S1.** Social behavior ethogram. An ethogram showing social alligator behaviors recorded during observational periods at each site (Garrick and Lang 1977; Vliet 1989).

| Behavior Performed | Description of Behavior |
|---|---|
| Bellowing | Individual subjects release a low-pitched rumbling from their mouth with their head raised at a 20–80 degree angle. |
| Bellowing with water dance | Individual subject releases a low-pitched rumbling from their mouth while in a body of water while the throat pouch is inflated and the tail is partially raised above the surface of the water. Then, the individual will sink into the water, leaving the head above the surface and tail raised. The throat pouch will inflate again and water droplets will splash vertically above his back. |
| Chumpf | Individual subject releases a deep coughing sound. |
| Fighting | Aggressive direct physical contact between multiple individuals which may include jaw snapping, biting, or thrashing. |
| Food theft | Individual bites or attempts to bite and take a food item from another individual. |
| Growl | Individual makes a guttural noise which may follow a headslapping display or be performed independently. |
| Hissing | Individual subject makes a hissing noise with its mouth slightly or semi-open, often in an aggressive manner or after a burst of movement. |
| Head colliding | Individual subject forcefully collides its snout with the body of another member of its congregation. |
| Headslapping | Individual subject opens its jaws before closing them quickly while moving the head up then down, causing a splash in the water around it while the head is above the surface of the water. |
| Raised posture | Individual subjects raise their head above the surface of the water at about a 20–80 degree angle. Individual's tail will also be raised out of the water slightly, so that the majority of the tail is visible above the surface. The individual's upper back should also be visible above the surface of the water. |
| Raised snout | Individual subjects raise their head above the surface of the water at about a 20–80 degree angle. |
| Roar | Individual raises its head to its back above the surface of the water. Individual then sinks down into the water, leaving their head raised at a 20–80 degree angle. The throat pouch will inflate and a low pitched growl is heard. |
| HOTA (head oblique tail arched) | Individual subject raises both its head and tail above the water while the rest of its body is submerged. This may occur independently or in conjunction with other social behaviors. |
| Tail wagging | Individual subject moves its tail quickly from side to side. |

**Table S2.** General behavior ethogram. An ethogram showing general alligator behaviors recorded during observational periods at each site.

| Behavior Performed | Description of Behavior |
|---|---|
| Basking | Individual subject lies on its stomach on a terrestrial or solid surface. Body must be removed from the body of water from at least the front legs. The mouth may be open at this time depending on temperature. |
| Death roll | Individual subject rolls its body horizontally at least 360 degrees. This occurs in conjunction with feeding, hunting, or fighting behaviors. |
| Group feeding | Multiple subjects react to a food item by opening their mouths and attempting to close their jaws around it. |
| Group basking | At least five subjects are lying on a terrestrial surface with all of their bodies at least halfway out of the water. |
| High walk | Individual subject walks on a terrestrial surface with the belly raised above it. One of the individual's front and one of its back legs on the opposite side of its body will move simultaneously, switching to the two other legs with each step. Legs will be raised high into the air. |
| Individual feeding | Individual subjects ingest a food item. |
| Low walk | Individual subject walks on a terrestrial surface with the belly touching it. One of the individual's front and one of its back legs on the opposite side of its body will move simultaneously, switching to the two other legs with each step. |