

occupied with her own thoughts, for she paid scant attention to the spectacular dancing going on around her. The males were performing and displaying. Their hoods were up. I saw no changes in their hoods. I cannot say now for certain that their tails were erect and in display, but I think they were. Each male acted in solo. He would raise his beak and his head would go back until his hood was about at his tail, which movement lifted the upper or front (throat) part of his breast a little out of the water. His head would not stop when it got near his tail except to pause imperceptibly for the return motion. The head came forward and, while the beak was about straight up, the bird gave a low cooing note but with good resonance, and the sweeping motion of the head lent this note the same quality of sound that the swinging of a bell imparts to the note of the bell. The sound was a soft *Ooooo* (as in *too*) or *Ew . . .* (as in *few*). This motion was continuous from start to finish, with a sweeping and graceful beauty. It ended with the breast depressed by the weight of the head coming forward. As soon as the head was forward the bird seemed to give itself a violent push through the water, starting a little run or dash, so to speak, to probably around fifteen feet from where the performance began then the head was in repose. This last part of the dance was a most unexpected ending. It amused me for I thought, when the first one did it, that this dance had been suddenly terminated by a sting on the tail! In other words, the dance, being so beautiful and dramatic must end with a dash. The dash was in any direction in which the bird happened to be facing. The cooing note struck me at first as most strange, but upon analysis, poetically speaking, it defies me to suggest any bird sound that could be more fitting. It is truly entrancing, but the female did not seem to think so.—WALLACE HAVELOCK ROBB, *Abbey Dawn, Kingston, Canada.*

**Great Blue Heron Fishing in Deep Water.**—On June 2, 1929, while observing the abundant bird life on and about Spring Lake, Meeker County, Minnesota, I had excellent opportunity to study the unusual fishing habits of two Great Blue Herons. While out on the lake in my canoe during the forenoon, I had noticed the abundance of young bullheads which, in large schools, were swimming about on or near the surface of the lake as is their habit at this time of the year. They were of various sizes in the different schools, all the way from fingerlings to fish four to six inches in length.

It became very windy during the afternoon and that was when the Great Blue Herons were busy. They would generally fly with the wind over the lake, spy a school of fish and then dive into the water for them often submerging the head and entire neck after the escaping prey. Generally in a short time, a few seconds to half a minute, each would capture a fish and fly against the wind to a high sheltered shore where they would strike the fish with the bill for a considerable time before swallowing them. Through my binoculars, I could see that the fish, as they held

them up at intervals previous to further pummeling, were most of them of fair size. No doubt the pounding process was to kill them before swallowing and to do such a good job of it that they were certain the fish could not erect the dangerous spines which otherwise might cause gastric complications.

As I knew, from soundings the depth of the water in all parts of the lake, the Herons did their fishing in depths varying from six to fourteen feet during the hour or more that I observed them, and each one carried out of the lake quite a number of fish. It proves that this species of Heron is not afraid to alight in deep water and remain there for some time. The wings were held up out of the water and not very much of the body was submerged. When a fish had been caught, they rose without difficulty from the surface.

In the October number of 'The Auk,' 1926, p. 537, is a somewhat similar observation by Mr. Owen J. Gromme and another is recorded by Dr. T. Gilbert Pearson in 'Bird Lore' Vol XXV, p. 77. No doubt these birds were also fishing.—J. P. JENSEN, *Dassel, Minnesota*.

**Note on the Courtship of the Bittern (*Botaurus lentiginosus*).—**Mr. William Brewster, in his original account of the display of white plumes in the Bittern, says: "We frequently saw them [the white plumes] fully displayed when the Bitterns were 'pumping,' but not then more conspicuously or in any different way, than at other times." The display of white plumes appears to be a continuous performance during the courtship, and not limited to the period of "pumping." This has been confirmed in published descriptions by other observers and has hitherto been my own experience. Thus, on May 30, 1913, I recorded in my notes of a Bittern that "pumped" at intervals: "White plumes at shoulders visible all the time as he walked about the meadow with head on level with shoulders. At times he stood motionless with head pointing up, but the white plumes still showing."

On May 18, 1929, from a canoe in the Topsfield marshes of the Ipswich River I had an excellent opportunity to watch a Bittern standing in short grass about a hundred and fifty yards away, and in this case the display of plumes followed a different order. For a minute or less the bird would stand erect with bill pointing upwards and with no trace of white plumes to be seen. He would then crouch, the conspicuous white plumes would suddenly pop out from his shoulders and wave in the breeze, he would at once stretch out his neck and act as if gulping in wind and then belching it out, at the same time emitting the "pumping" sound three to five times, generally four times. The Bittern would then resume the erect position and the plumes would disappear as quickly and as mysteriously as they had come. This series of events I watched closely with eight power binoculars about a dozen times. At no time were the plumes to be seen except during the "pumping."—CHARLES W. TOWNSEND, *Ipswich, Mass.*