

## TROUT ROMANCE

By<br>Jerald Horst

On any good summer weekend, many in coastal Louisiana are out chasing speckled trout. Of course, fishing for Louisiana's most popular estuarine fish isn't limited to the summer. Probably only in February do they get a slight break. With all of that fishing pressure, how can they reproduce enough to keep their population healthy?

One way is by beginning to spawn while quite young and by spawning often. Research indicates that in the Gulf of Mexico, more females begin spawning by age 1, and some are mature at age 09 (before their first birthday). Such fish are 10 to 13 inches long. Studies have shown that by age $1,96 \%$ of trout females in Louisiana are mature, $80 \%$ are mature in Mississippi, 78-100\% in northern Florida and $68 \%$ in Texas.

During the April to September spawning period, female speckled trout can spawn once every 4-5 days or 40 to 50 times per year. Spawning activity seems to have two peaks, one in May and another in August. Older fish and those spawned early in the spawning season of the previous year produce the first peak. The theory is that the August peak is partly due to fish spawned late in the previous year coming into maturity. Speckled trout seem to spawn more frequently at the beginning and end of the season and less often during June or July. Older trout spawn more frequently than young fish.

Spawning is done at water temperatures of 71-93 ${ }^{\circ}$ F. About 4-6 hours before spawning, the eggs to be spawned begin to swell with water (hydration), roughly doubling in size, and then spawning begins at dusk. Salinity of 20 parts per thousand (seawater is $32-35 \mathrm{ppt}$ ) is ideal. At salinities below 10 ppt or over 45 ppt , the stress on speckled trout is so high that they have little energy left for reproduction.

The advantage of spawning at an early age is limited by the trout's size. Egg production for each spawn is from 8,400 to 11,200 eggs per ounce of body weight (minus the weight of the eggs). Estimates on total annual egg production range from a low 28,000 for age 1 fish in Louisiana to 52 million for age 5 fish in Florida. (The low number for Louisiana fish may be an underestimation when compared to other states.)

