

SC DNR RED DRUM TAGGING PROGRAM

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South Carolina sub-adult red drum tagging data

The SC DNR tagging program has run from 1986-present. Over this period, a total of 53,280 red drum have been tagged. Nearly all the tags (53,260) were either 3.5" belly disks (fish with TL = 350-549 mm) or 5.5" shoulder tags (TL > 549 mm), either with or without reinforcing floy wire, which reduces shedding rates. The number of fish with these main tags types, as well as ages assigned to them, was 44,188 (see **Table 1**).

A total of 23,389 tag returns were reported from a variety sources. The primary source of returns was from angler reports and three separate SCDNR programs (one stop net survey and 2 trammel net surveys that used different gear specifications). For fish with assigned ages that had spent 180 or less days at large, a total of 11,799 returns were reported from these four sources (see **Table 2**).

Of all the fish tagged, the maximum distance between the point of release and point of angler recapture was 233 miles. Most fish were recaptured within 30 miles (96.4%), a small number were recaptured between 30 and 100 miles (3.1%), and very few were recaptured at greater distances (0.5%) (**Fig. 1**).

During the period covered by the tagging program, the size limitations for harvesting red drum in SC have changed (SEDAR18 Working Document 03). The main periods of size limitation are shown in **Table 3**.

Table1. Number of red drum with assigned ages that were tagged with 3” belly disk (3.0BD) or 5.5” shoulder dart (5.5SD) tags. Each tag type is subdivided into those reinforced with floy wire (W) and those not reinforced.

| Tag type | Age | Number tagged |
|----------|-----|---------------|
| 3.0BD | 1 | 5,363 |
| | 2 | 3,381 |
| | 3 | 143 |
| | 4+ | 0 |
| 3.0BDW | 1 | 6,871 |
| | 2 | 9,505 |
| | 3 | 597 |
| | 4+ | 75 |
| 5.5SD | 1 | 3 |
| | 2 | 988 |
| | 3 | 1,887 |
| | 4+ | 788 |
| 5.5SDW | 1 | 2 |
| | 2 | 2,363 |
| | 3 | 6,087 |
| | 4+ | 6,135 |
| Total | | 44,188 |

Table 2. Number of angler and SCDNR tag returns (including multiple recaptures of the same fish). Only those fish with assigned ages are included and only SCDNR returns from the three primary programs. The SCDNR programs included a stop net survey (1986-1994), the SCDNR standard trammel net survey (1990 - present) and a separate MARFIN trammel net survey (different gear specifications; 1986-1998).

| Source | Fate | All returns | Days-at-large \leq 180 since last release |
|--------|----------------------|-------------|--|
| Angler | Harvested | 4,327 | 2,497 |
| | Release with tag | 4,170 | 2,035 |
| | Released without tag | 525 | 210 |
| SCDNR | Harvested | 171 | 95 |
| | Release with tag | 11,546 | 6,959 |
| | Released without tag | 11 | 3 |
| | | 20,750 | 11,799 |

Table 3 Main size limitation management periods for red drum harvesting in South Carolina (based on SEDAR18 document S18 DW-18).

| Period | Dates | Size limits |
|--------|----------------------------|--|
| 1 | Before 9 June 1986 | No documented management |
| 2 | 9-Jun-1986 to 10-Jun-1993 | Minimum = 14", only 1 fish > 32" (various time windows and bag limits) |
| 3 | 11-Jun-1993 to 30-Aug-2001 | 14"-27" slot limit |
| 4 | 31-Aug-2001 to 14-Jun-2007 | 15"-24" slot limit |
| 5 | 15-Jun-2007 to present | 15"-23" slot limit |

Fig. 1. Distance (miles) between point of release and point of angler recapture of SC red drum.

