

The background is a solid blue color with a pattern of various leaf shapes in a lighter shade of blue, scattered across the surface. The leaves vary in size and orientation, creating a subtle, naturalistic texture.

Recreational Anglers

Friend or Foe?

Karen Cryan

What is a recreational angler?

- Any man woman or child that catches (or tries to) fish for reasons other than economic gain.
- As of 2008 it was estimated that 38.4 million Americans were recreational anglers. (Allen and Southwick 2008)
- More than 30% of Alaskan residents are salt water anglers! (NOAA 2006)
- 11.5% of the worlds population recreationally fishes (Guerrero, F. 2009.)

What are they catching?

- Large and small mouth bass
- Trout and salmon
- Sunfish, bluegill, crappie
- Perch, walleye
- Pike and pickerel
- Sturgeon
- Catfish, bullhead
- Carp
- Striped bass, bluefish, tuatog, black sea bass
- Bream, croaker, drum
- Tuna, marlin, wahoo
- Mahi mahi, jacks
- Fluke, flounder and halibut
- Tarpon, baracuda
- Sharks

How are they catching them?

- Fly fishing
- Casting
- Drifting
- Trolling
- Chumming
- Chunking
- Less commonly
 - Green sticking
 - Bow and arrow
 - Spear fishing
 - Harpooning
 - Fish traps
 - Cast nets
 - Dipnets

Angling associations

- The largest in the US
 - The Recreational Fishing Alliance <http://www.joinrfa.org/>
 - American Sport Fishing Association <http://www.asafishing.org/index.html>
 - Sponsors "Take me fishing.org"
 - The Recreational Boaters and Fishing Foundation
<http://www.rbff.org>
- Rhode Island Salt Water Anglers Association
<http://www.risaa.org/>
- Rhode Island Bass Anglers Association

Conservation efforts

- The Fish America Foundation provides more than \$1 million in grants each year for fisheries conservation and research
- Work with local law enforcement agencies to improve stream side buffer zones
- Massive educational efforts put forth to encourage their views toward good stewardship
- Some raise fish for stocking local streams and lakes

Economic Impact in the U.S.

- Over \$45 billion in retail sales annually
- \$16.4 billion in state and federal taxes
- \$600 million in fishing licenses annually
- \$720 million in excise taxes on imported gear and fuel

Pollution impact

- “shoreline angling does alter the riparian environment, contributing to pollution and environmental degradation in areas of high angling intensity” (O’Toole et al 2009)
 - Soil compaction, litter, terrestrial and aquatic macrophyte density, height, and diversity were lower at high angling-activity sites
- Debris left by fishermen includes: tackle, monofilament line, beverage containers, food wrappers, oil and fuel in the water, human waste

Effects of selection pressure

- Selection for large mature individuals is changing life histories of numerous species. (Holmond and Hammer 2004.)
- Fish that are highly vulnerable to angling selection also have higher metabolic rates, reduced metabolic scope, and increased parental care activity. (Cook et al 2007)
- Reductions in body size, length and age of maturity, genetic diversity (saura et al 2010).
- Cascading effects in the ecosystem as top predators are removed

What does “catch and release” really mean?

- Typically between and 10 and 50% of fish that are “released” die.
- If size limits are raised and it now takes catching 10 fish to get a single keeper, how many fish are killed?

Which is Conservation?

- Catching and keeping your limit of 2 fish and going home?
- Catching and releasing all your fish as you fish all day?

Impacts of stocking

- 3 species of fish (2 trout and 1 bass) listed in the world's top 100 invasive species were introduced for sport fishing. Rainbow trout can be found in 82 countries.
(Cambray 2003)
- Effects on biodiversity, food web dynamics result, with possible consequences for the long-term.
- Creates temporal instability in ecosystems

Bluefin Tuna

# of fish caught	2009	2010
Commercially	2482 (810.7MT)	3635 (635.2MT)
Recreationally	10,334 (565.9MT)	4119 (178.5MT)

1999 Commercial & Recreational Harvest of Selected Species

Species	Commercial	Recreational
Bluefish	7,404,732	8,612,089
Striped Bass	6,618,598	13,992,380
Black Sea Bass	3,623,869	2,246,099
Croaker	26,840,862	7,630,482
Summer Flounder	10,496,384	8,384,766
Red Drum	427,461	10,478,113
Red Snapper	4,127,984	4,652,376
Dolphin	1,173,367	13,413,073
Cod	21,444,855	2,599,633
Yellowfin Tuna	4,855,822	8,463,272
Scup	3,620,777	1,886,110
Spotted Sea Trout	825,866	13,549,461
Weakfish	6,924,588	3,143,427
Total Poundage	90,634,711	82,358,393

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