

# STRIPER

AN AMERICAN FISH STORY

# WARS

DICK RUSSELL



# STRIPER WARS

---

AN AMERICAN FISH STORY

BY DICK RUSSELL

ILLUSTRATIONS BY ANTHONY BENTON GUDE

 ISLANDPRESS / SHEARWATER BOOKS

*Washington • Covelo • London*

*A Shearwater Book*  
*Published by Island Press*

Copyright © 2005 Dick Russell

All rights reserved under International and Pan-American Copyright Conventions. No part of this book may be reproduced in any form or by any means without permission in writing from the publisher: Island Press, 1718 Connecticut Ave. NW, Suite 300, Washington, DC 20009.

SHEARWATER BOOKS is a trademark of The Center for Resource Economics.

*Library of Congress Cataloging-in-Publication data.*

Russell, Dick.

Striper wars : an American fish story / Dick Russell.

p. cm.

Includes bibliographical references and index.

ISBN 1-55963-632-7 (cloth : alk. paper)


1. Striped bass fishing—United States—History. I. Title.

SH691.S7R87 2005

799.17'732—dc22

2004029347

*British Cataloguing-in-Publication data available.*

Printed on recycled, acid-free paper 

Design by Maureen K. Gately

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

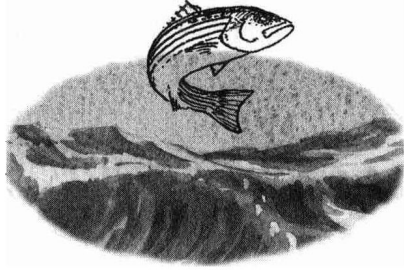
*To Mel and Jessie, who taught me how to fish*

## Contents

1	<i>Prologue</i>	ORIGINS OF A FISH STORY
13	<i>Chapter 1</i>	A TALE OF TWO FISHES
31	<i>Chapter 2</i>	STORM OVER THE HUDSON
49	<i>Chapter 3</i>	THE CONSCIENCE OF A LURE MAKER
71	<i>Chapter 4</i>	A MAN NAMED MENDONSA
91	<i>Chapter 5</i>	HOW THE STRIPED BASS STOPPED A HIGHWAY AND ELUDED THE MOB
114	<i>Chapter 6</i>	HOW RHODE ISLAND CHANGED THE WORLD
129	<i>Chapter 7</i>	SHOWDOWN AT FRIENDSHIP AIRPORT
146	<i>Chapter 8</i>	REVOLT OF THE BIOLOGISTS
165	<i>Chapter 9</i>	STRIPER MAGIC

185	<i>Chapter 10</i> THE DOUBLE-EDGED SWORD OF "FULL RECOVERY"
200	<i>Chapter 11</i> THE MYCO MYSTERY
217	<i>Chapter 12</i> THE TOWN THAT MENHADEN BUILT
235	<i>Chapter 13</i> UPRIVER
254	<i>Chapter 14</i> CALIFORNIA STRIPERS
277	<i>Chapter 15</i> KEEPERS OF THE RIVER
295	<i>Chapter 16</i> STRIPERS FOREVER?
317	<i>Acknowledgments</i>
322	<i>Notes</i>
349	<i>Index</i>

## Prologue



### *Origins of a Fish Story*

I n the summer of 1973, I first “wet a line” seeking striped bass in waters off the island of Martha’s Vineyard, Massachusetts. I’d not gone fishing since I was a boy living in the Midwest, during an occasional summer outing with my parents and brother on Lake Michigan. I grew up with little interest in recreational fishing, and certainly no natural instincts for it. Then a friend who happened to be a master fisherman invited me to visit him on the Vineyard. I’d rarely tasted anything as sweet as a striped bass. And I’d rarely known an experience as exciting as heading out to sea in the middle of a star-filled night, trolling the rip in a twenty-three-foot boat off Gay Head’s treacherous shoals.

My mentor didn’t sell his catch, taking home only enough for his family to eat. Nor did he use live bait on his rod-and-reel, which would have almost guaranteed hooking into a fish, and likely a big one. He was a purist who used plastic, metal, or wooden artificial lures designed to look like food a bass would enjoy. It took quite a bit more casting skill to make a Rebel, an Atom, or a Lupo plug move the way a bait-fish does below the surface, or to make a Popper dance invitingly across the waves.

You simply couldn't tell about striped bass. They were the most confounding of fish. You might figure to find them feeding on a flood tide, but on this particular night they'd choose an ebb tide. You might guess they'd go after the same lure you'd successfully employed yesterday, only to have the fish be completely oblivious to its charms today. Once in a while you might gun the boat toward a flock of birds hovering above a school of bass in a seeming feeding frenzy, only to have every last fish disappear into some twilight zone as you came within casting distance. If you hooked into a bass that had made that mistake before, it would dive deep and quickly attempt to wrap your line around a rock in order to break loose.

Even after I'd practiced my backyard casting long enough to avoid getting a snarl in my line *most* of the time, it took many a fishing trip before I finally landed a striped bass. I still remember the first time vividly. Ask any striper fisherman, and he will tell you his story.

At midnight, standing at the bow of the boat, a lighthouse beacon from the Gay Head cliffs was my only external guide. The moment the fish struck, I knew. This was not the hammering strike of a bluefish or the furiously darting pull of a bonito. The feeling was more subtle, the leap of my heart more intense. "It's a bass!" resounded inside me, though I dared not utter it aloud.

The fish ran and line flew from my reel. Anything could happen, I realized. Conceivably, the fish could roll and cut the line with its razor-sharp gill edges. It might turn sideways and hang in the current, like a sail against the wind. It might simply jerk free. No fish, I already knew, is so wise as a striped bass.

But there was no time to think of these possibilities, nothing to do but follow into the fish's invisible realm. The feeling of each moment was all that connected the thin thread I was holding to the surge of life on the opposite end.

Try to remember all you've learned. Bring the rod-tip high, reel down on her, not too fast, not too slow, oh God have I lost her? No, still there, I can feel her again, breaking the surface, oh look at that!, gone under again now. Where is she?, close maybe, a friend's voice

echoing “Bring the fish around this side,” slow turn, moon’s behind a cloud, nothing to go on but this feeling inside and my heart’s in my throat and there is only a flash where the net meets the fish and . . .

I stood by the bow-rail staring down at the deck. A whisper: “You caught a bass, Dick. You caught a bass.” If time had passed as I slowly reeled the fish to the boat, I’d had no awareness of it. But when the bass was in, and I saw the struggle and the joy reflected in the eyes of my partners, I believed the fish had somehow belonged to me the whole time.



Probably no near-shore fish, not even the prized Atlantic salmon, arouses so much emotion as striped bass—the biggest of which have been known to reach lengths of five feet, weigh more than a hundred pounds, and live for more than thirty years. To several million sport-fishermen like me along the Atlantic coast, it is the premier gamefish to pursue: intelligent, crafty, the ultimate challenge for a rod-and-reeler. To thousands more commercial fishermen, striped bass are a lucrative source of seasonal income. To hundreds of restaurateurs, they are the favorite item on a summer menu.

But it is more than the striped bass’s size, mettle, and flavor that gives them such mystique. They are an intrinsically American fish. It might even be said that striped bass are the aquatic equivalent of the American bald eagle. Without the sustenance this fish provided, the Pilgrims would not have survived their first harsh winters in the Plymouth Colony. Two decades later, the fish was the impetus behind America’s first conservation law, when the Massachusetts Bay Colony’s general court ruled that striped bass were too valuable a resource to be used as fertilizer by the maize growers and squash planters. Along the coastline of the original thirteen colonies, the fish traced its migratory path and provided food for the table. Later, striped bass joined the westward pioneers, being transplanted from New Jersey out to California on the early transcontinental railroad in 1879.

Presidents from George Washington to George W. Bush have pursued this most wily and tasty of creatures. So have millions of less renowned mortals, for the striper is readily accessible to the common man (or, as the case may be, the uncommon woman). You don't need a boat to go after striped bass, unlike tuna or tarpon. They can be sought from shore, dock, or jetty; on a rock, a rip, a channel, a drop-off, or a reef. They can be fished deep or shallow. They can be fished using lures—swimmers, jigs, umbrella rigs, spoons, and such—or live bait such as herring, mackerel, and eels. They can be taken on flies with names like Lefty's Deceiver, Skipping Bug, and Surf Candy. They can also be snared in gillnets, fish traps, haul seines, and bottom trawls.

With primary spawning habitats in the Chesapeake Bay and the Hudson River systems, striped bass have prompted the development of an entire boat and tackle industry around their migration along the East Coast. They are also the most sought-after gamefish in the San Francisco Bay–Delta estuary. They are pursued in the Southern river systems of North Carolina, South Carolina, and Georgia. They have been stocked in dozens of landlocked lakes and streams along the Gulf Coast, from the Suwannee River in Florida westward through Alabama, Mississippi, Louisiana, and Texas. You can now fish for stripers in the Mississippi and the Colorado rivers, or in Lake Texoma, Oklahoma, and Lake Meade, California. Freshwater striped bass tournaments are now held in at least thirty-eight states, with prizes as high as \$70,000 awarded to the winner of the Raytown Lake, Pennsylvania, event.

Many striped bass are dependent upon food-rich, sandy shorelines during portions of their life stages. Like we humans, a striper seems to love a good beach. But the fact that they live in such close proximity to people, who can utilize so many different means of catching them and whose practices on land can affect them in myriad ways, makes the striped bass as vulnerable a creature as it is adaptable.

This vulnerability is what has made the striped bass a flash point for conservation struggles over the last half century. It was over striped bass that, in the 1960s, citizens established their right to sue a government agency in order to protect natural resources. A study of striped

bass became the precursor for the first Environmental Impact Statement (EIS). This set the stage for development of the National Environmental Policy Act of 1969, now the cornerstone of American environmental law, requiring all federal agencies to prepare detailed EISs to ensure that environmental effects are taken into account along with economic and technical considerations. The fight for the long-term survival of the striped bass was also crucial to the establishment of the Natural Resources Defense Council, which employs legal action as a vital arm of environmental activism, and to spawning the national Riverkeeper movement, a loose alliance of citizens' groups that have come together to protect their local waterways. Yet while striped bass have been a watershed species in terms of successful environmental action in the past, their story today vividly illustrates the need for an expanded view: If we want to preserve species, we can't do so one by one; rather, we must look at the entire ecosystem of which they—and we—are a part.

When I first began fishing for them, striped bass were abundant along the Eastern seaboard. In 1970, the largest “dominant year class” ever had been recorded in their primary spawning grounds of the Chesapeake Bay. This phenomenon, first studied in depth by a Yale University researcher named Daniel Merriman, occurred periodically—often once every half-dozen years, occasionally longer—when female fish encountered optimal natural conditions for reproductive success. If the especially large numbers of females from this year class entered a good nursery environment and then received protection from fishing pressure, they would similarly replenish the fishery when they reached spawning maturity, about the age of six years. The annual young-of-the-year survey, conducted in the Chesapeake's river systems each summer and fall, had recorded an average of more than thirty juvenile striped bass every time the marine scientists hauled in their seine nets to catalogue the various fish before letting them all go. By 1973, many of the three-year-old females from this bounteous hatch had joined the coastal migration. Commercial landings of striped bass from Maine to North Carolina would reach a record high of 14 million

pounds that year. Knowing nothing about all this at the time, I figured the vast numbers available to fishermen were the norm.

Then, in the early 1980s, the puzzling steep population decline of the striped bass was among the first indications that something had gone terribly wrong with our oceans and their piscine inhabitants. The Atlantic population of stripers was so depleted that the fish seemed destined to be soon added to the endangered species list. A fishermen's campaign on behalf of the striper, of which I became an integral part, ensured that that did not happen, however. For the first time, the U.S. Congress intervened to protect an inshore fish whose territory had always been regulated—or misregulated—by the states. For the first time, too, pivotal states declared moratoriums on possession or sale of a prized commercial and recreational fish species. A striped bass population estimated to contain about 4.6 million fish in 1982 would reach a historic peak estimated at an astounding 56.7 million fish in 2004.

The fish's remarkable comeback has become part of modern conservation lore. Today it is once again among the most popular saltwater fish in the United States. As Carl Safina wrote in *Scientific American* in 1995: "The resurgence of striped bass along the eastern coast of the U.S. is probably the best example in the world of a species that was allowed to recoup through tough management and an intelligent rebuilding plan."

What follows is the behind-the-scenes story of how this came to pass, of what I call the striper wars, along with the strange history of the striped bass since then, a story about a magnificent fish and those of us who fought against commercial interests and government bureaucrats to bring it back from the brink. It is a case study in environmental activism, one suggestive of lessons that might be applied to today's critical questions of how to govern other fisheries, at a time when so many species are in grave jeopardy. And it's also a story about the dilemmas that face us as the need to move beyond protecting single fish stocks, and toward taking into account entire ecosystems, becomes the focus of the future.

For today, a new set of circumstances has again put the striped bass's future in peril. While its primary source of food—the menhaden—are apparently being overfished in the Chesapeake Bay region, for example, a chronic and debilitating disease has struck a majority of the striper population in its Chesapeake Bay spawning habitat. No longer is it simply a matter of preventing overfishing, as it was in the past; now the struggle involves the life cycle of the fish and the realm it inhabits. The striped bass still has something to teach us.



As winter recedes in the Atlantic waters around Cape Hatteras, North Carolina, a female striped bass stirs from her lethargy. Born a decade and a half ago just above the salt wedge inside the Chesapeake Bay estuary, she is at the southern apex of her migratory range. She has been in near-dormancy, eating little since arriving here several months earlier, but now, as the water warms, it is time to move north. Immensely fecund, she is laden with eggs. Like the salmon, she will return to spawn in the river where she was born. But while a salmon will home in on a precise location, sometimes swimming upriver for hundreds of miles, a striped bass will seek out merely the same subestuary or estuary. Striped bass are classified as one of the anadromous fishes—born and returning to spawn in tidal freshwater, while many spend the majority of their lives in salt water.

Passing Cape Charles, she turns to enter the Chesapeake Bay, a 195-mile-long stretch of serrated peninsulas and veinlike tributaries. The largest and most complex of America's 130 estuaries, the bay's watershed embraces about 90 percent of Maryland, 60 percent of Virginia, and a considerable part of eastern Pennsylvania. The bass might enter any of three rivers in Virginia's sector of the lower bay—the James, the York, or the Rappahannock—or, farther north, the Potomac or Patuxent rivers along the bay's western shore. Or she might journey up the Eastern Shore, where three large rivers—Maryland's Nanticoke, Choptank, and Chester—and several lesser tidal ones are

drained by the Delmarva Peninsula. Some of her sisters will travel into the upper bay, to spawn either there or in the Sassafras, Bohemia, Elk, Northeast, or Susquehanna rivers.

On a late afternoon in early May, when the waters reach an optimum temperature just shy of 65 degrees Fahrenheit, this particular fish moves swiftly into the spawning reaches of the Choptank. The blood supply to her eggs shuts down, and they now have a limited time to be successfully fertilized. Mature male striped bass have preceded her by days or even weeks, waiting, schooled up in a strong current above the river bottom. The female gives off a scent to attract them. The water in the shallows begins to boil as ten males—it can be as many as fifty—surround and engage her in a pre-spawning courtship ritual. They thrash, they splash; the males sometimes even turn on their sides and skid across the surface, as if wounded. This is sometimes called a “rock fight.” In the Chesapeake region, striped bass are more commonly known as rockfish, for their propensity to hide and forage around large boulders in the tributary rivers. (The *saxatilis* part of their scientific name, *Morone saxatilis*, means “rock dweller” in Latin.)

Then, a quietude. As she slowly sinks below the surface, pressed upon still by perhaps half a dozen males who nudge her belly with their snouts, she begins to expel a pale river of eggs. From 10,000 to 5 million eggs may be broadcast in a matter of hours, each one a translucent green sphere covered by an amber globule of oil, the size of tiny pearls. The males swim back and forth through the cloud of eggs, releasing their milt to mix with it. And so it continues, new males moving in to replace their spent brethren, continuing to prod the female until all of her eggs are released. Only then will both sexes meander off downriver to rest and eat, leaving the fertilized eggs to sweep back and forth in the brackish currents.

Within two to four days, a mouth forms on our newborn bass. Shortly thereafter, the larva disperses in the water column and begins feeding on microscopic zooplankton. Soon its diet will progress to tiny crustaceans, including copepods and cladocerans (water fleas). When the new bass reaches fifty to eighty days old, its prey will advance to lit-

tle mysid shrimp, scavenging crustaceans called amphipods, and even smaller larval fish.

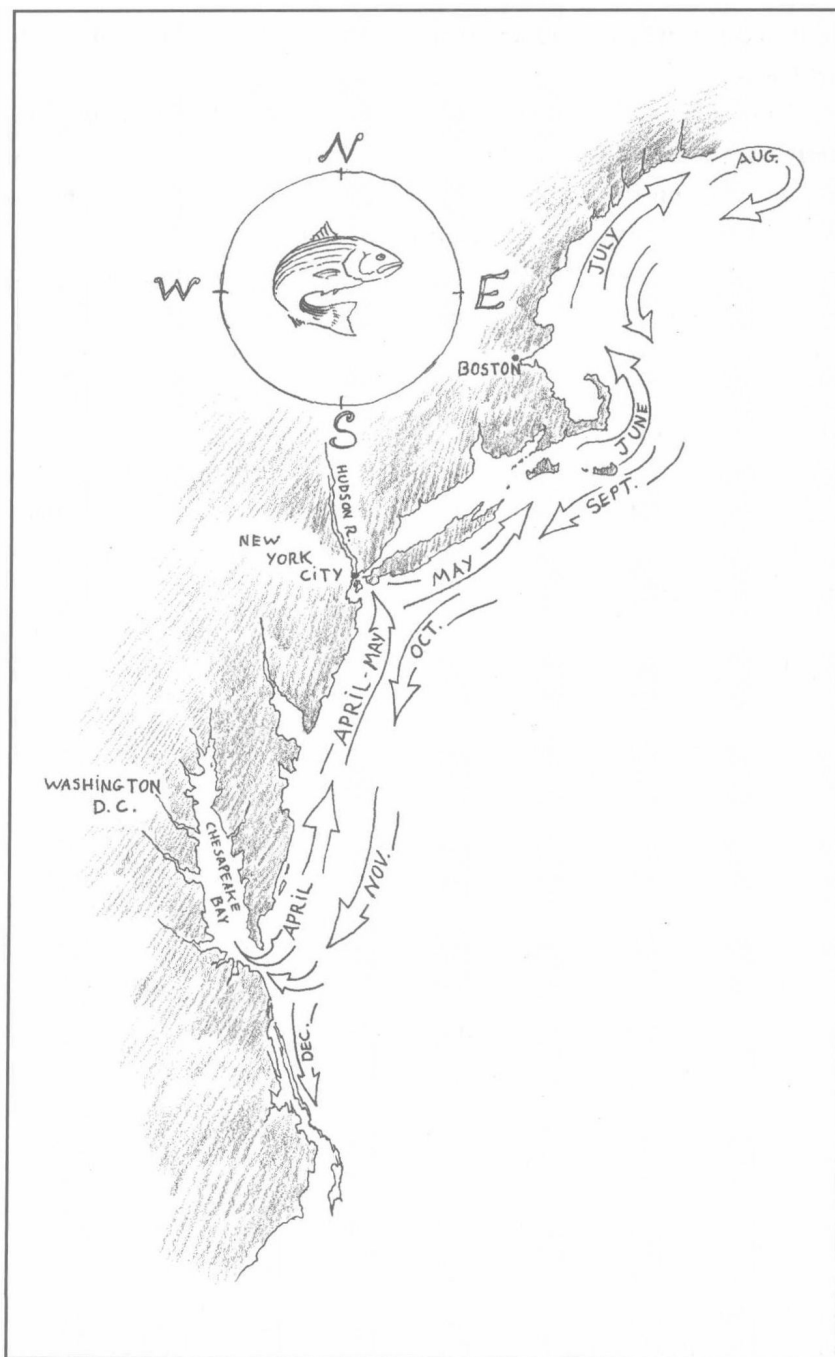
Nursery areas of striped bass are located in littoral shoal habitats in freshwater and brackish tidal regions of estuaries, where the salinity is higher. At about thirty millimeters, our baby bass becomes a juvenile. With fins now completely developed, this highly mobile and gregarious animal gathers in schools often numbering several thousand other bass along sandy near-shore bottoms. A keen watch must be kept for predators amid the spiked marsh grasses and waterlogged riverbanks: adult bluefish, weakfish, and other piscivores that would enjoy a good meal of baby bass.

By late summer of its first year, our “fry” has grown to between two and three inches long. As a “fingerling,” it will remain in the estuary over the winter, reaching between five and seven inches by the following spring. During its second summer, our young striper will begin to forage on what oil-rich menhaden it can find, bay anchovies, and other small fish. By the time it is two, it will have attained a size of as much as twelve inches.

Customarily, striped bass remain in the Chesapeake Bay for between two and four years. A majority of the males, in fact, will never migrate into the Atlantic at all. But many females leave the Chesapeake system at the beginning of their third year. In the ocean, they will join older fish that have been wintering offshore and are returning to their summer feeding grounds.

They mingle as they follow the coastline northward, traveling about twelve miles a day, sometimes with speed-bursts as fast as twenty miles per hour when chasing bait-balls of menhaden. An adult female from the Chesapeake may cover as many as 2,000 miles in a year’s roundtrip journey. Beyond Delaware to the north, the springtime migration finds younger fish joined by much larger and older ones along the beaches of New Jersey.

On they journey, past Sandy Hook, eastward along the coast to Long Island. Some of the Hudson River-spawned fish—abounding near the United Nations, Ellis Island, and the Statue of Liberty—now



merge with their Chesapeake relations. They travel together along the Connecticut coast, then onward to Rhode Island's Narragansett Bay and the shorelines from Sakonnet Point to Watch Hill. Many keep going, into Cape Cod Bay and the waters around Martha's Vineyard. And some journey beyond the Gulf of Maine to summer in the waters off Nova Scotia in Canada.

Striped bass, of course, do not swim in one vast parade from south to north, then back again in the fall when the waters grow colder. They will pause, and often stay, where the summer's food supply is good and the water temperature satisfactory. Other fish constitute more than 95 percent of their diet. The bass do have favorite meals—with menhaden ranking at the top in nutritional value—but they will devour almost anything in their path: sand worms and sand lances, silversides, eels, squid, lobsters, crabs, shrimp, soft-shelled clams. They've even been discovered with Portuguese man-of-war, a poisonous jellyfish, in their stomachs.

Mike Laptew, a diver/filmmaker who makes underwater videos, has described observing a striper feeding "blitz" as akin to "watching a pride of lions work a herd of zebra." Laptew writes: "The majority of bass would circle the silversides, sealing off their escape, while several individuals slowly made their way to the center of the school. The tiny baitfish didn't panic as long as the bass moved slowly; they simply maintained a fixed distance from the bass, creating a clear zone around each fish, as if they were projecting some type of invisible forcefield. However, when the time was right, the bass would suddenly charge into the wall of silversides, gulping down several fish at a time."

The larger, older bass (the age can be determined by counting the rings in their ear bones, or otoliths) are usually solitary feeders. Most active soon after dark and shortly before sunrise, they often establish territory behind boulders or rocky outcroppings, facing up-current to await the scent of prey that may be flushed through the inlets.

Watch the fins move as food approaches—the twin dorsals, the pectoral, pelvic, anal, and caudal fins fluttering ever so slightly