

| Photographs by Nathan Eldridge

## Ted Ames Fisherman, lobsterman, scientist, historical ecologist, blooming optimist

Discussed: Ecological fish stewardship, the perils of being a genius, Maine's groundfishing industry, sustainable lobster, and the return of the 100-pound codfish

Ted Ames lives at the top of Thurlow's Hill in Stonington with his wife, Robin Alden, and their daughter Anne. He drives a black Toyota pickup around the state, talking with fishermen as part of the Penobscot East Resource Center's effort to rebuild community fisheries. During the summer, he cultures lobster eggs and feeds algae to juvenile lobsters at the Zone C Lobster Hatchery.

In 2004, Ames published a scientific paper, "The Stock Structure of Atlantic Cod in the Gulf of Maine," which used stories from 61- to 94-year-old Maine fishermen to show where cod had historically spawned. The work was widely recognized, and in 2005, the MacArthur Foundation awarded him with a \$500,000 fellowship.

Ames is working on a series of papers about managing Gulf of Maine fish more holistically. He believes that the ecological protection of areas where fish reproduce could help stop the cyclical crashes of cod, haddock, and other commercial fish species. Ecologically oriented area management could even repopulate the Gulf of Maine with enough fish to rebuild its former abundance, when fishermen throughout New England were catching 50- to 60-pound cod.

His fish tales may seem like tall tales, but Ames is a humble, soft-spoken man.

Meine: You're a fisherman and a scientist and an oral historian. *The New Yorker* called you a "historical ecologist." What do you like to be known as?

Ted Ames: I suppose I do elements of all those things. At a point, call me anything but late for supper.

M: For landlubbers like me, the ocean floor is an unknowable, unseeable place. You've dedicated your life to understanding the ocean bottom—not just now but historically. Why?

TA: I come from a fishing family and we've been fishing here for hundreds of years. The changes that have happened in the system are staggering. We went from an incredible abundance of fish to very few. From midcoast Maine to Canada—some 150 miles of coastline—there's only one species that's supporting fishermen: lobsters. We're working on strategies to bring back other fisheries. It's been an

interesting stretch of road. It brings to mind that old Chinese curse, "May you live in interesting times." Certainly, we fishermen do.

M: You're best known for research you did on the historic stock structure of Gulf of Maine cod. What were you trying to accomplish?

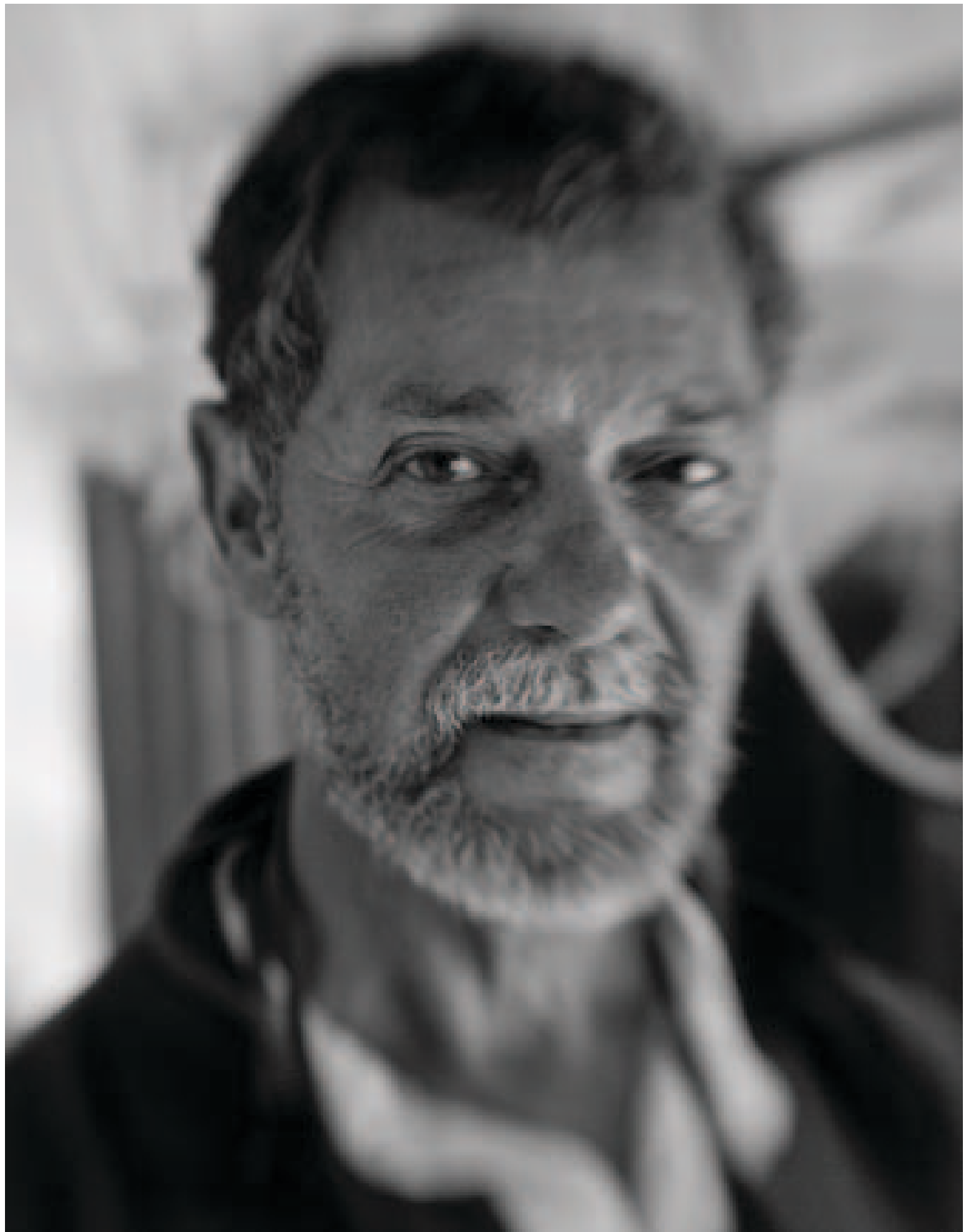
TA: The spawning ground study was an attempt to give the scientific community more information about the peculiarities of cod and haddock. I developed a method for validating anecdotal information from fisherman to make it acceptable to the scientific community. We documented a little less than 1,000 square miles of spawning grounds on the coastal shelf between Gloucester, Mass., and Canada. A year after that paper was published, Joe Wroblewski, a researcher at Memorial University in Newfoundland, discovered that cod hone to natal spawning grounds. I said, "Ah, I have all the points of origin for codfish in coastal New England during the 1930s. All I had to do was figure out where they went for the rest of the year and then we would finally know something about how the fish existed 100 years ago. The question was: "Were they really a pandemic population—with fish evenly distributed everywhere? Or, were there smaller components with unique spawning grounds and with different migration corridors?" By golly, it came out that there were bodies of fish that had different migration corridors and they behaved almost like separate subpopulations.

M: Why is there such an ongoing mutual mistrust between what scientists and federal regulators say about fishery stocks and what fishermen say?

TA: The way it looks to me, having one foot in both arenas, is that a lot of the problems stem from the management system. Currently, each fish is being



Lobster at the Zone C Hatchery



managed separately as a separate species and the assumption is that fish are evenly distributed throughout the Gulf of Maine. But every fishermen knows that's not so. So, fishermen start off by saying, "You can't manage these fish this way because it isn't the way they exist." And management says, "This is the way we do it. This is the way we've done it for 35 years. And this is the way that works best." Unfortunately, for many of us, that hasn't been true. There's a hard spot there. The other part is that the scientific community is rigorous. People do research and come up with results, saying, "The sky is falling." And somebody else repeats the experiment and declares, "Well, it's not a problem. Actually, the opposite is true." Fishermen are intimately knowledgeable of the local ecology and can tell you the seasons by what they're catching in their nets. When this disagrees with what scientists are saying, one group looks at the other and says, "Those guys are out of their minds." **Now, the bottom line is: How can we integrate fishermen's information into a management system that's been going on for a third of the century without turning all the fishing industries upside down? It's tricky turf.**

M: You received a MacArthur Fellowship for your work. Has that changed the way you are received?

TA: It has. In some good ways and in some bad ways. The good way is that the concerns that fishermen have had, have a stronger voice now. They don't say, "Oh there's that old, clunky fisherman from Downeast Maine shooting his mouth off again." They say, "This guy knows something about the system and he's sharing it. Let's look at it." But, by the same token, the title of the award that I got—"the Genius Grant"—has changed the way fishermen receive me. Rather than being just this guy who fishes and is sharing these ideas and things he's seen, all of sudden, I'm this guy who knows it all and so on.

M: In 2006, you were putting in 500 traps. Do you still lobster on that scale?

TA: Unfortunately, I don't. I had a back operation about two years ago. I haven't really fished since. It was the third time I threw out my back. It's clear that I'm pushing my luck. I had intended to go back fishing, but because of my involvement with the Zone C Lobster Hatchery, I haven't had the time to do it.

M: The lobster industry is currently going through a certification process for sustainability. Is the lobster fishery a good model for taking care of both the ecosystem and the working waterfront community?

TA: It's a great model and it's working tremendously well. Despite the fact that lobster prices are down this year, the lobster stocks are very healthy. If we could do something comparable to this in groundfish or in other species, I think we could get them sustainable again.

M: When I read about fishing, there's always this sense of doom-and-gloom. Scientists, for example, predict the end of fishing by 2048. Are there any hopeful signs in Maine?

TA: Maine has a large share of New England's coastal shelf, but the state only controls the area between the shore and three miles out. The model of collaborative area management has been a powerful tool in the lobster industry. You have an industrial fishery offshore and an incredibly mobile, intense fishery between three and 40 miles out. Then, you have an inner area, where very rigorous, ecologically sound ground rules are in effect. The end result is the biggest, most sustainable, most profitable fishery in New England. It's distributed among nearly 7,000 owner-operator fishermen just in the state of Maine alone. That's what we would like them to try with other fisheries.

M: Is this the subject of your most recent research?

TA: I propose a modification, like the Maine lobster zone plan, that basically creates area management for each of the four subpopulations of codfish. Because my later work is showing that cod,

haddock, cusk, wolffish, white hake, winter flounder, grey sole, all of these fish, have their life cycle within the same area as these cod populations, I'm arguing, "Hey, this is the logical, rational management unit for those species."

M: Do you think a groundfisherman would get nervous to hear you say that?

TA: No. A layered area management, like what we have for lobster, creates a better fishery for everybody. It's true. The current mobile fleet won't be able to target nursery or spawning grounds anymore. **If fish can reproduce, then we're going to have 10 times the fish we have now. It becomes kind of like watching a popcorn popper with the lid off. Here you have this little inner area that all of a sudden is blowing fish all over the place.** It's producing the way that it used to historically. The question in the end is, Do we know it's going to do that? No. But we do know that if you allow fish to reproduce, if you allow them to grow to adult sizes, then there's a very good chance that you'll have more fish. Here is a way that we can improve the system for the fish and the fishermen. You create incredible opportunities for the whole fishing fleet simply by segregating how large the fishing effort can be in each of the areas. I think it's a cool way to go and I truly hope that's the direction it goes in.

M: In a hundred years, do you think Maine fisherman will be catching 100-pound cod again?

TA: I think it could happen long before that, but it has to start first. Can we persuade management to allow a system that franchises fishermen to help take care of the fishery? That's the bottom line: Can we create a situation where fishermen look at each other and say, "We can't go all over the ocean. We've got to depend on the fish that are here, so, by golly, we better take care of them"??+

*Edited and transcribed by Peter A. Smith*