

## **Interview with Joshua Horwitz, author of *War of the Whales***

**Planet:** This book took you six years to research and write. Were you starting from scratch learning about whales, or have they long interested you? I remember hearing the rallying cry, "Save the Whales," when I was a college student in the 1970s.

**Horwitz:** Looking back, it's honestly appalling to me how little I knew at the outset about whales, the ocean, the U.S. Navy, and environmental law. What I knew about whales was essentially what I'd learned in Mr. Biggs's fifth grade biology class: that they were mammals who had once lived on land. The idea that they were nature's experiment in gigantism, and that they reverse migrated into the ocean was intriguing. But beyond that, they were pretty much a blank slate for me – which surprisingly is the case for many people who have never seen them in the wild. It wasn't until I visited a gray whale lagoon in Baja seven years ago that I lit up inside around whales, which is another through theme of my book: even "objective" scientists couldn't study these animals for long without being touched in a deep place.

Of course, the Save the Whales movement was on my screen when I was in college in the 1970s – I remember that ABC's *Wide World of Sports* actually featured Greenpeace's high-seas chase after whaling ships as part of their Saturday afternoon offering! But living on the East Coast at the time, mostly in New York City, it was in the background, rather than the foreground at the time. The character from my book who made the biggest impression on my youth was John Lilly, the NIH neuroscientist who became a leading navy-funded dolphin research, before liberating this research subjects in the late '60s and helping to instigate the Save the Whales movement. By the time I was reading Lilly's books in the '70s, he had moved on from dolphins to isolation tanks and psychedelic meditations on the human brain as bio-computer. My sophomore year in college, my inner circle was reading Lilly's, *The Center of the Cyclone: An Autobiography of Inner Space*.

**Planet:** What prompted you to devote half a dozen years to telling this particular story? To your knowledge, has anyone else told it?

**Horwitz:** I had no idea this was going to turn into such a long-term research and writing project. Like any other author, I'm cautious about diving into a book, because I know how hard it is to bring any subject alive on the page, and to get it "right" in some meaningful way. The first I'd heard about the story was a newspaper article about an environmental lawyer suing the Navy over sonar's impact on whales. The headline: "Navy v. Whales" read like a divorce proceeding – which in fact it was in many ways. What first intrigued me about the story, once I dug into the history, was that the Navy had fallen under the spell of whales and dolphins way back in the late 50s and early 60s, when they first discovered that they echolocated in water in much the way that bats did in air – with sound. At the time, the only people who cared about "saving the whales" were whalers, who were frantically

trying to figure out how to revive the whale stocks that had crashed in the 1940s after decades of over-fishing. In the 1960s, the Navy single-handedly gave birth to the scientific discipline of marine mammal science and cetology. They launched an intensive investigation into whale biosonar, communication and even hydrodynamics that they applied to their own search after Soviet submarines during the Cold War. The Navy continues to be far and away the largest funder of whale research in the world. One of the dramatic pivot points in the book is the conflict of conscience in the scientific community – they had to decide whether to bear witness, in their published research and in court, to the sometime lethal impact of navy sonar or to heed their natural fear of biting the hand that fed their research careers: the Office of Navy Research.

**Planet:** Were you aware of the mass stranding of beaked whales in the Bahamas when it occurred in March 2000, or did it come to your attention later on?

**Horwitz:** That stranding, which was the first well-documented case of navy sonar driving whales onto beaches, didn't register with me at the time, though it was also the first mass stranding that was reported in the mainstream press at the time. The first time I heard and read anything about it was in 2003, when NRDC first sued the Navy over Low Frequency Active (LFA) sonar.

**Planet:** In the book, the U.S. Navy faces off against whale researchers, environmental attorneys, and environmental activists, yet you write about the key players on both sides with what seems like great respect. Are there good guys and bad guys in this story?

**Horwitz:** While there are clearly some heroes in this story – particularly the environmental attorney and the field biologist who witnessed the Bahamas stranding and became a reluctant whistleblower – I don't find any villains. This is a story about the clash of two mission driven cultures who both cared deeply about the oceans and whales, but for opposing reasons. I knew next to nothing about the Navy and its culture before I reported this book. I came away with a deep respect for the Navy characters I came to know – particularly the retired Admirals who gave me a lot of access and insight into what was driving their decisions at the time. These officers make incredible sacrifices, even if they're serving during peacetime. One main character in my book moved his family 22 times over the course of his 35-year naval career – and this is typical of a navy officer's life. And he was so poorly paid that he struggled to send his kids to college.

In fact, the antagonists in this story had more traits in common than not: they were all highly committed and intelligent; none of them had chosen their career paths – or this fight -- for either money or power. They were true believers, but their particular belief structures were in sometimes direct opposition: conservation vs. homeland security – and the scientists were caught in the middle.

**Planet:** It's ironic that the whale researcher who became what you call "the

reluctant whistle-blower" had spent eight years as a naval officer. So a subplot of *War of the Whales* is an internal face-off taking place within one individual, is it not?

**Horwitz:** Ken Balcomb is the pivotal character in the book, and to me the most intriguing. Even though he'd spent most of his life "in service" – first in the US Navy and later as field researcher trying to conserve endangered species of whales – he's shied away from public controversies. Until the day he found himself at about War of the ground-zero of the biggest multi-species mass stranding of whale ever recorded. Once he documented the event – first by videotaping the incident and then by collecting and preserving forensic evidence from the whales themselves (that would be by cutting off their heads and dragging them into a large freezer) -- he was drawn into an agonizing contest of loyalties: between the oath of secrecy he'd taken to the Navy during his years of classified sonar work, and his commitment to the whales he'd been studying for a decade in the Bahamas and the Pacific Northwest. For all his tenacious commitment to a twenty-year lawsuit against the Navy, the environmental attorney (Joel Reynolds) had less at stake personally when they both decided to take on the world's most powerful Navy.

**Planet:** How much time did you spend "in the field" researching whale behavior and naval surveillance practices in the process of writing *War of the Whales*?

**Horwitz:** The research was fascinating and bottomless, taking me from international science conferences in locales like Cape Town, South Africa to field stations in Hawaii, the San Juan Islands in the Pacific Northwest, Baja, and the Bahamas. I visited Navy dolphin trainers in San Diego, marine mammal researchers at Scripps in La Jolla, in Santa Cruz, in Woods Hole, and even in College Station, Texas. I eventually gained entrance to high-security Navy facilities, such as the Navy Research Lab in Washington, DC and the Navy Academy in Annapolis – which has been pretty much in lock-down since 9-11. And part of any author's "field research" are the libraries and archives where many of the really juicy bits are buried.

**Planet:** Without giving away the ending of the book, what do you think has changed between March 2000 and today in terms of protecting whales from the types of sonic assaults that drove them ashore that week in the Bahamas?

**Horwitz:** One of the themes that emerges from the character and events in my book is that the fight for conservation ---whether to protect an endangered species or threatened environment, never really ends. Any victory simply earns you the right to fight another day. The legal battle over Navy sonar continues today, with several active cases brought recently by NRDC and Earthjustice, with multiple co-plaintiffs, to block sonar training exercises in its California and Hawaii ranges. Over the past two decades there have been shifts in momentum between the contestants in terms of the outcomes in court. And of course, there is an ongoing, parallel battle being contested in the court of public opinion.

But if you step back and look at the net change in the way the Navy now operates, at

least in U.S. waters, the changes have been are profound. As recently as the late '90s, the Navy operated with no accountability to the Marine Mammal Protection Act, the Endangered Species Act, or any other of the major conservation laws first passed in the early '70s. Particularly during the Cold War, all its high-intensity sound experiments and sonar exercises were conducted in secret, with no transparency, no environmental assessments, no safeguards.

Today, after a series of courtroom losses, the Navy has committed to conducting comprehensive Environmental Impact Statements for sonar trainings on all its U.S. coastal ranges. There is still a lot of debate, much in public forums and in legal proceedings, over risk mitigation having to do with geographic and seasonal exclusions. But compared to how the Navy operated twenty years ago, it's night and day.

Unfortunately, the same can't be said about the Navy sonar training on international ranges, where they still don't conduct rigorous environmental assessments, and where strandings are still occurring. Just this past April, five beaked whales stranded on the coast of Crete during joint sonar exercises involving the U.S., Greek and Israeli navies. This was the fourth recorded stranding event during naval exercises in those same waters, so they should have known better than to be operating there. In the end, it comes down to a vigilant public holding the Navy accountable, both domestically and internationally.

**Planet:** What do you hope the telling of this story will accomplish?

For me, this story is only partly about naval sonar and whales. At heart it addresses the question of what makes an effective change agent?

**Horwitz:** My two protagonists – the environmental attorney and the marine biologist – are in many ways polar opposites. The lawyer is an institutional player who works inside the system in collaboration with other organizations and activists, with scientists and celebrities. Whatever will get the job done. The whale scientist is a true maverick who's never had any institutional affiliation, and who's not very good a working collaboratively. One's an extrovert, and the other's an introvert who seems to enjoy the company of whales over humans.

But they share several important traits that make them highly effective when it comes to forcing change. They're both tenacious and totally committed to the fighting the fight for as long as it takes. Often at a cost to their personal lives. They don't allow cynicism to erode their fundamental idealism or sense of purpose – which is a big challenge in a field like environmental law where you're typically outgunned by deep-pocketed adversaries or facing judicial panels who defer to the military, especially during wartime. Tenacity, it turns out, is as important as intelligence or tactical decisions when it comes to fights over threatened species and environments. By the end of the book, their antagonists at the Navy, at the regulatory agencies, and on Capitol Hill have long ago cycled out of service and into other careers. But Balcomb and Reynolds are still at it, still fighting for the whales.

**Planet:** Do you think "acoustic ecology," as some have termed it, should get more attention within the environmental movement?

**Horwitz:** Ocean noise pollution is a huge threat to all forms of marine life. But because it's invisible, and occurs under water, it's a difficult problem to educate people about or focus people's attention. Noise from international shipping and oil gas exploration, even more than military sonar, have made the oceans increasingly noisy environments. And the science emerging in recent years has begun to quantify the costs to marine mammals and other marine life, including fish and even coral. Marine mammals are fundamentally acoustic animals, so ocean noise is can make it difficult for them to communicate, to find mates, to forage for food, and to avoid predators. And it's putting alarming reproductive pressure on some endangered species.

Last week I was an attendee at an ocean conservation summit in Washington DC, and it was notable that ocean noise wasn't high on other participants' agenda. Partially, it's due to people's understandable focus on climate change and its impact on the oceans, primarily acidification. But it's also economic. The oil and gas and shipping industries have very powerful lobbies and very well-funded legal war chests, so trying to regulate their noise pollution seems daunting. And because noise pollution is an unseen – and by humans largely unheard – problem, it's difficult to mobilize the public. I hope my book will go a ways to increasing public consciousness of the issue, as well as activism.

**Planet:** Kids are drawn to whales -- at least I sure was. Do you think this is a story that will resonate with children as well as adults?

**Horwitz:** I have three teenaged daughters, so I can affirm that whales have a lot of sex appeal for young people. I'm also pleased to see that environmental science has ascended to parity with chemistry and biology in many high school science curricula. While my book is pitched at adult readers, it's absolutely a good summer read for any high school student who's interested in the oceans or marine life. Amazon has short-listed *War of the Whales* as one of its "best summer reads" which is about as crossover an endorsement as I could hope for.

**Planet:** Have you been approached yet about selling the movie rights to *War of the Whales*?

**Horwitz:** Yes. But we're still waiting for Leo.

**Planet:** Do you think whales are as intelligent or more intelligent than we are?

**Horwitz:** That's ultimately a contextual question. Whales are the Einsteins of the oceans, of marine communication and navigation. They have evolved highly complex acoustic cultures which they transmit generationally and which we can't begin to

comprehend. They've adapted to and dominated every ocean environment on the planet, and despite the ceaseless slaughter of industrial whaling, many of them have endured. So we can probably learn a lot from the whales about adaptation as we face our own struggle to survive on a planet we've pretty much pushed to the limit.

When it comes to assessing human intelligence, it's hard to know whether to be persuaded by the incredible innovations of technology, or the short-sighted self interest we see everywhere in evidence, particularly in our mismanagement of the environment and our proclivity for war. If I had to cite one reason that humans have prevailed, for now, in our chronic wars against the whales, I'd point not to our brains, but to our opposable thumbs. If whales had evolved thumbs instead of flukes, who do you think would be running the planet right now? And I suspect they'd be doing a better job of it.