

JIM NOLLMAN



# MUSIC FOR SWIMMING AND FLYING

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|-------------------------------|-------|
| <b>1. Orca Jazzing</b>        | 05:53 |
| <b>2. Bubble Symphony</b>     | 03:02 |
| <b>3. Amazon Headwaters</b>   | 03:37 |
| <b>4. Calm</b>                | 06:25 |
| <b>5. Cretaceous Songbook</b> | 13:49 |
| <b>6. Beluga Tells a Joke</b> | 04:24 |
| <b>7. Orca Moan</b>           | 04:16 |
| <b>8. Humpy's Raga</b>        | 04:32 |
| <b>9. Dolphin Realtime</b>    | 06:18 |
| <b>10. The Thunderbirds</b>   | 06:07 |

All music by Jim Nollman

Charles Amirkhanian - Executive Producer

Andrew Weathers - Producer & Mastering Engineer

Liam Herb - Introductory Liner Notes

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# FROGGY WENT A COURTIN'

**Jim Nollman** must be one of the most unique artists that I have ever encountered. My first exposure to Jim was in early 2018 when I first came to work at Other Minds. I was tasked with the ever-crucial job of checking that the links on our archive were functioning properly and stumbled upon something called [Turkey Song \(1973\)](#) by Jim Nollman. Upon clicking the play button, I heard Charles Amirkhanian introducing a work for human performers and 300 tom turkeys in interspecies communication, followed by a piercing tenor singing the strangest rendition of *Froggy Went A-Courtin'* I'd ever heard:

*Froggy went a courtin' and he did ride, uh-huh,  
Froggy went a courtin' and he did ride, uh-huh,  
Froggy went a courtin' and he did ride,  
With a sword and a pistol by his side, uh-huh, uh-huh.*

Without 300 tom turkeys this song is quite lackluster. A timeless folk song perhaps, but nothing particularly memorable. In Jim's version, every time his voice reached any of the high points of the phrase there was an explosion of gobbles! It was one of the strangest things I had ever heard. It went a little something like this (note: the gobbles are at the bolded portions of the phrase).

*Froggy went a courtin' and he did ride, uh-huh,  
Froggy **went a courtin' and he did** ride, uh-huh,  
Froggy went a courtin' **and he did ride**,  
With a sword and a pistol by his side, uh-huh, uh-huh.*

After a few refrains, two musicians began banging drums, blowing slide whistles, singing, and shouting, all while the turkeys joined in, but only when they reached the particular register. From this moment forward I was hooked and wanted to learn more about this strange man who plays music with animals.

Born in Boston on January 23, 1947, Jim Nollman studied English and Theater at Tufts University, graduating in 1969. It was shortly after this that he made his way to San Francisco and composed his infamous Thanksgiving Day radio piece *Turkey Song* (1973) for two musicians and 300 tom turkeys for KPFA radio in Berkeley. Nollman would continue his explorations of the intersections of animal human communications and music for the better part of a half century until he retired from his work with cetaceans.

This is not to say that Nollman's work and interests are singular from that point forward. He also [composed pieces for cigarette smokers](#) (KPFA, 1973), performed electronic music for audiences in swimming pools, wrote five books on subjects from gardening to human's impact on whale habitats, collaborated with the conceptual art collective [Ant Farm](#), and founded and directed the non-profit organization [interspecies](#), which sponsored artists' efforts to interact with animals through music. He is also a well-respected visual artist and has worked on numerous scientific and activism-based expeditions, including one of Greenpeace's first overseas projects at Iki Island, Japan, where fishermen were slaughtering dolphins to compensate for human overfishing. In addition, Nollman worked with the U.S. Navy on sonar techniques to reduce the needless casualties of whales during submarine exercises, though he states that they never heeded his advice.

Nollman has had a wide array of musical influences. He has cited Hindustani classical music, traditional Irish and Appalachian fiddle tunes, 90s IDM artists like Squarepusher, rock and roll, and blues, to name a few. When I asked Jim about his music making process, he told me that it is a holistic mix of listening and intuition rather than a surgical or process-oriented approach.

The pieces on *Swimming and Flying* are a mix of compositions that involve live musical collaboration between dolphins and orcas and guitars and mandolins (played by Nollman) and electroacoustic compositions that use a variety of sampled animal sounds to create kaleidoscopic soundscapes, each having its own peculiar identities as Nollman has outlined below.

Jim Nollman is a difficult man to pin down: he's equal parts scientist, writer, folk musician, DJ, animal lover, inventor, and performance artist, all of which you will hear represented in *Swimming and Flying*. It's my hope that in reading this, you will find Jim Nollman's music as fascinating as I do.

—Liam Herb | *Berkeley, CA, March 2021*

# WET

**People who believe** communication between humans and other species commonly occurs have usually experienced it firsthand. For those who doubt it, music between species may provide the most convincing evidence. Music possesses a unique power to drill an entry into our heart as well as our brain. If musical communication between species is happening, a listener doesn't need a scientific paper to explain it. They either hear it, or not.

Remember the film, *Close Encounters of the Third Kind*? It made the point that music is the most logical first step for establishing a dialogue with an extraterrestrial intelligence. In many ways, cetaceans are an extraterrestrial intelligence living in the ocean.

I've made a career interacting musically with animals. My most promising results occurred with cetaceans, especially orcas and lag dolphins. These species possess brains that either approach or surpass the human brain in sheer size, with an especially large area devoted to acoustic capabilities that surpass our own. These animals talk to one another using frequency modulated whistles and clicks. "Frequency modulated" means melody. Clicks are almost always rhythmic.

Over several years, the organization I directed, interspecies.com, anchored a boat outfitted with an underwater recording studio in the same cove for a month each summer, and then invited musicians to transmit their own take on live music into the water through underwater speakers. We never chased the cetaceans. If the orcas wanted to play music with us, they had to come to our boat. They came a few hours after dark almost every night, and often stuck around for hours at a time.

I am an artist whose primary work for thirty years has been exploring musical communication with animals and habitat. Both the process and the result of this conceptual effort is a hybrid of performance, nature art, and what a whale biologist once described as "half-science." Because the performed music only happens out on the ocean, I have presented the recordings of these events as data at scientific and environmental conferences, rather than on stage in concert halls and clubs. To make it seem real to audiences, I also helped develop the venue of the underwater concert, now so popular in Europe. Audiences listen to live music through underwater and above-water speakers while floating in heated, neutrally buoyant spa pools. I have also taken many of these recordings and sampled the calls

to compose digital compositions comprised overwhelmingly of animal calls and natural forces like waves, wind, and thunder.

Other Minds is known around the world not only for its promotion of new music, but for building a community of sophisticated listeners who are willing and ready to stretch the boundaries of what is musical. My collaboration with Other Minds has granted me the best possible platform to showcase not only some of the most revealing real-time interactions with cetaceans, but also to include digital compositions and songs that feature the calls of 20 or 30 species of oceanic creatures and birds.

You can listen to the music of *Swimming and Flying* as a bio-acoustic mystery waiting to be solved, and perhaps learn to distinguish the Amazon River dolphin from the bearded seal and the lemurs. Or you can sit back, close your eyes, and let it evoke an unexpected sense of despondency that too many of these vibrant beings are now on the verge of extinction. I choose to hear it as an expression of planetary community, the Earth itself singing its own song.

—Jim Nollman | *San Juan Island, WA, December 2020*

# NOTES ON THE MUSIC

**This digital download** showcases four examples of my best interactions with two members of the dolphin family that reside off the northeast coast of Vancouver Island, and recorded entirely underwater between 1986 and 2005. Three of these pieces occurred with the orcas of A Pod. The fourth was recorded over a 48 hour period while our boat/recording studio was constantly surrounded by a herd of 300 Pacific white-sided dolphins. In each case, an electric guitar or mandolin was played from the deck and amplified into the water through a Lubell 50 watt underwater speaker. I was listening both to the guitar sound and the animal's response through headphones. These recordings were made with one or two hydrophones designed and built by Michael Sofen.

*Swimming and Flying* also includes eight digital compositions created using a vast assortment of animal calls, including lobster, lemurs, porcupine, doves, cachalot, quetzal, hermit thrush, humpback whale, cachalot, zebra finch, cardinal, Weddell seals, croakers and grunts, and human breathing. I recorded a fair share of these calls myself on various expeditions to such locales as the headwaters of the Amazon River, Tenerife, both the Russian and Canadian Arctic, Tonga, the Azores, Australia, and my own backyard in the Pacific Northwest.

## 1. *Orca Jazzing*

This example of interspecies music with orcas was recorded during a midnight session in 1986, at a time when Interspecies.com was conducting research with 30 invited participants at a place we affectionately named Orcananda. You can read more about this wilderness camp in my book, *The Charged Border*. For three summers in a row, we attracted the same two orcas to our boat almost every night, about an hour after dark. Perhaps sadly, I do not believe such a striking level of interaction is still possible at that place. These days, there are far too many whale watching boats following these orcas all the time, and the whales appear less inclined to linger in an animated manner to create music. This piece is realtime as far as the guitar and the orcas are concerned, but includes added rhythm to provide a listening anchor at the beginning stage of the exchange. This rhythm ceases as the interaction develops.

## 2. *Bubble Symphony*

A composition developed for performance, in my attempt to tell the well known and recurring story of drowning swimmers being saved by dolphins. The bubbles were

generated on a beat sampler. The heavy breathing is by Seattle performance artist Christian Swenson. The water sounds and the clicking pilot whales were recorded aboard the good ship Kairos off Tenerife. The ending features the incredible spiraling call of bearded seals gifted to me by the Alaska Department of Fish and Game.

### 3. ***Amazon Headwaters***

Most of the birds in this digital composition were recorded in July 2006 at Bolivia's Amboró National Park, a place renowned for its 700 distinct bird species. The main singers in this ambient rumba are crested oropendolas, a close cousin of the oriole. Other voices include crickets, macaws, as well as several unknown birds. The rhythms were created from the nearby river tumbling over rocks. The solo instrument is a Brazilian berimbau. The loops were created using Reaktor software's Massive beat sampler.

### 4. ***Calm***

This piece unfolded during an improvised underwater concert at Bad Orb, Germany in 2014. The intent was twofold. First, to give an urban audience a sense of what they might hear, late at night, when the underwater ambience is transmitting live over boat speakers. This piece includes samples of water current, humpback whales, cachalot, lobsters, shrimp, beluga whales, and croakers. Second, the place I worked with orcas for so many summers, eventually lost its natural ambience to the pervasive noise of cruise ships rumbling through the strait once or twice an hour, 24 hours

a day. A listener will experience a slight measure of what was a massive intrusion, by the inclusion of a recording of a cruise ship passing two miles away from our hydrophone. What you hear is the boat's engine below water, plus the same ship's Latin band blaring salsa music above water.

### 5. ***Cretaceous Songbook***

This piece was inspired by my experiences walking my neighborhood with birders who ID birds by listening. It made me wonder what it would be like walking the same walk during the late cretaceous period when dinosaurs were evolving into birds. The piece started out by lowering the pitches of a small sample set including a few local finches, two sparrow species, cowbirds, plus two exotics: lyrebirds and nightingales. I fed this set into a beat maker, and randomized the controls until I had enough distinct calls to use as instruments. The piece takes place along a river, which provides both a constant and a way to introduce several large critters.

### 6. ***Beluga Tells a Joke***

It is a tragedy that beluga whales are still hunted for their blubber all across the Arctic. Of all the cetacean species I've encountered in my career, I conclude that beluga whales are the most likely to possess an actual language. This piece makes use of some small part of the many calls I recorded during three trips to the Russian White Sea. The end holds a surprise, a sampled excerpt from a 1927 blues recording by Blind Willy Johnson.



## 7. ***Orca Moan***

Recorded aboard the Shelmar off the northeast coast of Vancouver Island in 1999, while being interviewed by a film crew from *National Geographic* about playing music with orcas. The instrument is an electric guitar played with a bottleneck. While the guitar/orca exchange is realtime, it has been edited to boost the orcas' volume and lower the guitar volume. This is usually necessary because of the difference in volume caused by both playing the guitar and recording the interspecies result from the same small boat. While the speaker and the hydrophone are just ten feet apart, the whales are moving about, sometimes up to two hundred meters from the boat. The original recording was also full of noise from water turbulence, causing the cables to start slapping against the boat hull. Failing to eliminate this extraneous noise through software, I decided to loop the most glaring section of the noise to create the beat you hear near the start of the piece. By the time the best interaction occurred, I silenced these beats. This same technique is also used on *Orca Jazzy*.

## 8. ***Humpy's Raga***

While most people have heard the humpback whale ethereal courtship songs, few are aware of the humpback's strident hunting calls. I recorded these latter calls in southeast Alaska in 1996, and then sampled them to compose a melody for an Indian raga, while the background drone is created from humpback courting calls. The tabla beat is a mix of samples of Pacific white-sided dolphin echolocation with

accents created from the crunchy calls of Amazon river dolphins. The swish solo is all ocean current.

## 9. ***Dolphin Realtime***

Excerpts from a two day long interspecies event in September 2001 that included roughly 300 Pacific white-sided dolphins, recorded from the research vessel, Shelmar off the northern tip of Vancouver Island. During those days, multiple dolphins constantly vocalized mere inches from the recording hydrophone. This piece has undergone minimal editing, focused on consolidating six hours of recordings into this seven minute piece.

## 10. ***The Thunderbirds:***

A tone poem that starts and ends with a thunderstorm. The storm segues into a symphony of North American bird songs sampled from ten species including cardinals, doves, cowbirds, meadowlarks, and various thrushes. Many of these bird songs have been modulated by looping, reversing, time-stretching, and re-pitching. To do this, I relied heavily on an assortment of Native Instruments samplers including Kontakt, Massive, Travelizer, and Chonndo.

This album honors the generosity of Katy Nollman, Bob Wood of Shelmar, Gigi Coyle, Rauno and Outi Lauhakangas, Tim Hinkle, Alan Slifka, Takako Iwatani and Hidekazu Oshita of ICERC-Japan, Krystyna Jurzykowski, Ben White, John and Tony Lilly, Don Statter, Vance Martin of the World Wilderness Congress, Mickey Remann of LiquidSound, Elisabeth Jones, Christian

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These compositions were created and or edited in Pro Tools, using Ableton Live, Melodyne, and software by Native Instruments including Guitar Rig, Kontakt, Spektral Delay, and especially these Reaktor instruments: Travelizer, Massive, Chonndo, and DSQ-32. All the underwater recordings were produced on the Interspecies.com sound system designed and built by Mike Sofen. The underwater speakers were made by Lubell Labs, plus hydrophones by Aquarian Systems, and Cetacean Research. The Amazonian birds were recorded on an M-Audio Microtrack mini-recorder and a Sennheiser shotgun microphone.

—Jim Nollman



**Other Minds** is a global New Music community where composers, students and listeners discover and learn about innovative music by composers from all over the world.

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