## A Whale of a Deception

## PHIL CLAPHAM and YULIA IVASHCHENKO

In late October of 1966, an imposing ship steamed quietly through the placid waters of the Suez Canal. Clad in drab industrial gray, and flying a Soviet hammer and sickle flag at her masthead, the vessel was accompanied by a large fleet of smaller craft. Any observer able to decipher Cyrillic script could have read, in rusting metallic letters on her bow, the name Sovetskaya Ukraina. The more experienced would perhaps have identified her as a whaling factory ship, traveling with her attendant fleet of catcher boats and scouting vessels on a transit that would take them south into the Red Sea and beyond.

Although the whaling fleet may have presented a noteworthy sight, *Sovetska-ya Ukraina*'s passage through the Canal was nothing unusual. As far as anyone knew, she was bound once more for the great whaling grounds of the Antarctic, and was simply taking the shortest route there from her home port of Odessa on the Black Sea.

A few days later, however, as the fleet entered the Gulf of Aden, it abruptly broke its southbound track. Unmarked by anyone except some local fishermen, *Sovetskaya Ukraina* and her catchers turned to the northeast. As they cruised within sight of the desert coastline of Oman, the fleet fanned out. On November 4th, they began to kill whales.

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A whaling fleet engaged in the practice of whaling is hardly cause for comment. What made these catches unusual, however, was that almost all of them were illegal.

Over the next two weeks, the vessels of the Soviet fleet swept the northwestern Indian Ocean. Their search for whales took them from Oman to the Gulf of Kutch off Pakistan, through offshore waters west of the Indian city of Bombay, and south to the Maldive Islands. By the time Sovetskaya Ukraina finally resumed her course for the Antarctic on November 21st, her catcher boats had delivered more than three hundred whales to the huge floating factory for processing. Most of the animals had been either humpbacks, Megaptera novaeangliae, or blue whales, Balaenoptera musculus, two species that were officially considered "protected" under the international regulations that governed commercial whaling.

When the Soviet fleet reached the Antarctic, the pattern was repeated. Already-depleted and supposedly protected stocks of whales were plundered for several months until the onset of the austral winter. Finally, as the weather turned increasingly foul, the factory ship and her catchers began the long journey home.

In keeping with its obligations as a signatory to international whaling agreements, the Soviet government dutifully reported that the *Sovetskaya Ukraina* fleet had taken a total of 2,727 whales during the 1966–67 season, all of them "legal" species such as sperm, *Physeter macrocephalus*; fin, *Balaenoptera physalus*; and sei, *Balaenoptera borealis*; whales. The actual catch was 5,127—a difference of 2,400 whales. Nor was

Sovetskaya Ukraina operating alone. Elsewhere, two other Soviet factory fleets had taken a further 5,323 animals that went unreported. In a single season, 7,723 whales had literally disappeared without a trace.

This was neither the first nor the most productive year for illegal whaling. In just two Antarctic seasons (1959–60 and 1960–61), *Sovetskaya Ukraina* (Fig. 1) and another floating factory, *Slava* (Fig. 2), killed a staggering 25,000 humpback whales in the waters south of Australia and New Zealand.

This flagrant disregard for international agreement, and for the declining status of Antarctic whale stocks, was no renegade act of piracy by the commanders of the fleets concerned. The illegal catches of that whaling season were simply the latest in a carefully planned official strategy that had been implemented almost 20 years before. Few people suspected it, but the Soviet Union had been plundering the world's whale populations with abandon since 1947. By the time that the illegal catches finally ended in 1973, the Soviets had killed probably over 200,000 more whales than they had officially reported. And in the process, they had quite possibly succeeded in dooming at least one population of whales—that of the right whale in the eastern North Pacific—to extinction.

The story of whaling in the twentieth century is largely one of excess. It is also a story of technology finally catching up with greed.

In Herman Melville's day, whales were caught using methods that had changed little in centuries. Men set out in small boats and had to approach dangerously close to a whale before hurling a hand-held harpoon at the animal's huge body. It was a risky business, and not very efficient. Whales could escape. Boats could be overturned. And some species were simply too fast to be caught.

By the turn of the 20th century, two inventions had changed all this. Introduction of the steam engine allowed men to hunt even the fastest whales. Species which had been out of reach of vessels powered solely by wind in a sail, or human strength applied to oars, were suddenly fair game. In particular, whalers could now easily catch the greatest prizes of all, the huge blue and fin whales. At the same time, the invention of the explosive harpoon provided whalers with a means to kill whales more quickly and efficiently, and from a distance.

This revolution in whaling was completed with two more innovations. The compressor solved the long-standing problem of how to prevent whale carcasses from sinking: now, whalers could pump compressed air into a dead whale's body to keep it afloat. Finally, in the 1920's, the factory ship was introduced, freeing whalers from their ties to land. Factory fleets could remain at sea for months, killing and processing large numbers of whales with grim efficiency. Whaling had finally come into the industrial age.

With timing that was ironically coincidental, the beginning of the 20th century also brought the discovery of the richest whaling grounds in the world. In 1904, whaling vessel captained by the Norwegian C. F. Larsen ventured into the largely unexplored waters of the Southern Ocean, and there the crew found whales beyond their wildest dreams. Feeding in the highly productive polar waters were huge populations of almost every commercially valuable species. Blue whales; fin whales; humpbacks; southern right whales, Eubalaena australis; sperm whales; and others abounded. Some of the blue whales exceeded 100 feet in length. For a while, it seemed as though this great bounty would have no end, and vessels flocked to the bottom of the world to claim their share. Modern whaling had found its



Figure 1.—Soviet whaling factory ship *Sovetskaya Ukraina* (right) moored with her sister ship *Sovetskaya Rossiya*. They were the two largest whaling factory ships ever built. Year and photographer unknown.

great playground, and a slaughter almost unparalleled in the history of wildlife exploitation was about to begin.

In the Southern Hemisphere alone, the whaling industry would kill almost 900,000 whales over the next four decades. By the end of World War II, it had become clear to even the most reluctant whalers that some sort of quota system was needed to prevent the commercial extinction of the world's whale stocks. In 1946, the whaling nations—including the Soviet Union—signed the International Convention for the Regulation of Whaling. The Convention created the

International Whaling Commission, a body which met annually to oversee research on whale populations and to set scientifically based quotas that would theoretically balance the industry's revenues with the need for long-term conservation of populations.

Not unpredictably, a process that was conceived as a necessarily good idea quickly fell victim to the desire for profit. Since whales are difficult to study, it was virtually impossible to obtain indisputable proof to support predictions of population crashes. There was frequently doubt, and its benefit was



Figure 2.—Soviet factory ship *Slava*. Year and photographer unknown.



Figure 3.—Yuri Mikhalev, Odessa 2008. Photo by Phil Clapham.

never awarded to the whales. During the 1950's, the whalers continued to slaughter their quarry in record numbers. In just 10 years, more than a quarter million fin whales were killed in the Southern Ocean, together with tens of thousands of other whales.

By the end of the decade, virtually all objective scientists recognized that many whale populations were being exploited well beyond the limits of reason. Over the next few years, as catches declined and some populations received complete protection from hunting, it became clear that the International Whaling Commission's intention to oversee management based upon sustainable exploitation had fallen short of reality. As it turned out, the Soviets were secretly ensuring that this shortfall was considerably greater than anyone could have imagined.

Yuri Alexeich Mikhalev (Fig. 3) knows the truth about Soviet whaling better than most. In 1964, Mikhalev left Odessa on board *Sovetskaya Ukraina*, bound for the Southern Ocean. He was 26. As a young biologist with a keen interest in marine mammals, Mikhalev viewed his employment as a valuable opportunity to conduct research using the many carcasses supplied by the whaling fleet.

Mikhalev's reality check began with his very first whale. Some time after the fleet had transited Suez, one of the catchers killed a Bryde's whale, *Balaenoptera edeni*, in the Gulf of Aden. Bryde's whales are fast, sleek animals that live their lives (unlike other baleen whales) entirely in warm waters. They are so similar to another species, the sei whale, that distinguishing the two at sea is notoriously difficult. Not so on the deck of a factory ship, where one

has the leisure to examine an animal closely. The head of a Bryde's whale is marked by three prominent ridges running lengthways down the top, a feature absent in any other species. Although Mikhalev had never seen a whale before, he had studied well and knew what the animal lying before him was.

To his surprise, the senior biologist on board recorded the catch in the official log as a sei whale. Mikhalev shyly drew the biologist's attention to the head ridges and pointed to the description of Bryde's whale in a book written by Avenir Tomilin, the most eminent of Russian whale biologists (Tomilin, 1957). "Yes," said the biologist, "but the KGB Commissar on board tells me I am to record it as a sei whale, so that's what it's going to be." Only later did Mikhalev understand the problem with the Gulf of Aden catch. Since Bryde's whales are not found in Antarctic waters, and since the fleet was not supposed to be whaling anywhere else, reporting a catch of this species would raise suspicions.

The weeks that followed brought many more illegal catches, and Mikhalev gradually came to the realization that his country was engaged in a large-scale violation of whaling regulations. One day, he hesitantly broached the topic with the Commissar. "He told me that

everyone was doing it," says Mikhalev. "The Japanese, the Norwegians—everyone. They were all breaking the rules. It was only much later that I found out this wasn't true."

Mikhalev also discovered that, in addition to the "official" record of catches that was submitted to the International Whaling Commission, a second log was maintained as well. These secret logs gave the true catch data for each expedition, and many years later they were to prove instrumental in setting the record straight.

Because of the extent of the deception, security on board whaling vessels was tight even by Soviet standards. They rarely visited foreign ports, and when they did the crew was either confined on board or sent ashore in groups of two or three, and always escorted. Mikhalev also recalls preparation for more extreme measures. One day he was standing on the bridge of *Sovetskaya Ukraina* as she sailed through the narrow straits of the Dardanelles off the Turkish coast. He remarked to the captain how close to shore they were and how tempting it might prove for someone to jump overboard and swim to land. "In that case," replied the captain, "I have orders to place the ship between the man and the beach so that he can be retrieved. And if that fails, I'm supposed to run him over."

Mikhalev was on board *Sovetskaya Ukraina* during her 1966–67 season, and has unpleasant memories of the time spent in the northern Indian Ocean. "Conditions on board were terrible. It was incredibly hot, and the vessels had no good ventilation—they were built for the Antarctic, not the tropics. Everything smelled of diesel fuel and butchered whales." Several men died as a result of the conditions, and another took his own life.

During that trip, the fleet killed 238 humpback whales in just ten days in the Arabian Sea. Mikhalev describes the merciless efficiency with which the

animals were hunted down. "Sovetskaya Ukraina had more catchers than any other factory ship—twenty-five. All the catchers would fan out into a long line, so that each boat was just within sight of the one on either side of it. When you saw the catcher next to you stopped, you knew that they had found whales. When that happened, everyone would converge on the spot, kill every animal in the area, then move on."

Disturbed by this reckless pillaging of a resource, Mikhalev and some other biologists took the courageous step of complaining to the authorities. Their response was to stop Mikhalev's pay for 8 months. Nonetheless, he persisted, writing letters to the Ministry of Fisheries. After several such letters with no response, he and his dissenting colleagues were one day summoned to Moscow and called before the minister himself, a man named Ishkov who was so influential that he was jokingly referred to as the "eternal" minister of Soviet fisheries.

Mikhalev recalls Ishkov's response to their concerns. "He said to us, 'OK, I will stop this whaling tomorrow if you tell me what you will replace it with in the Five-Year Plan—how you will replace all the things we get from the whales now.' Of course we couldn't do that." When Mikhalev suggested that the whaling would leave no whales for their grandchildren, the minister laughed grimly. "He said, 'Your grandchildren? You talk to me about your grandchildren? Your grandchildren aren't the ones who can remove me from my job!"

A similar confrontation occurred some years later with the Vice-Minister for Fisheries, a man named Ritov. Ritov promised to set up a commission to investigate, but despite Mikhalev's cooperation in providing incontrovertible evidence of the falsification of data, the commission turned in a watered-down report that implicated no one. And Mikhalev's career was essentially ruined.

As fruitless as these meetings were, they served to provide confirmation of something they had all suspected: that the illegal catches represented official policy. Ironically, Vice-Minister Ritov



Figure 4.—Alexei Solyanik. Photo by Yuri Mikhalev.

would have bigger problems to worry about than Mikhalev's grandchildren. Some years later, he was executed for corruption.

No one is more emblematic of the story of Soviet whaling, and no one more notorious, than Alexei Nikolaievich Solyanik (Berzin, 2008).<sup>2</sup> Solyanik (Fig. 4) was by all accounts a ruthless man who rose quickly to prominence in the Soviet whaling industry, and his success at sea was such that he received numerous awards from the state, including the much-coveted "Hero of Socialist Labor." Solyanik was appointed the "General Captain-Director" of not one whaling fleet, but two: *Slava* and *Sovetskaya Ukraina*, and with these huge floating factories he roamed the

<sup>&</sup>lt;sup>1</sup>Actually, this is not strictly correct. Japan is now known to have falsified catch data on sperm and Bryde's whales in their coastal fishery, up to at least 1987 (Kondo and Kasuya, 2002). However, these illegal catches were never on the same scale as those of the U.S.S.R.

<sup>&</sup>lt;sup>2</sup>Fred Berzin's memoir (Berzin, 2008) devotes an entire section to Solyanik, with details of his rise to power, abuses, and eventual downfall.



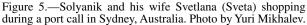




Figure 6.—Yuri Mikhalev (right) and Svetlana Solyanik in Sydney; the man in the middle is unknown. Photo by Yuri Mikhalev.

Southern Ocean and decimated populations of whales. It was Solyanik who was responsible for the huge catches of humpback whales—25,000 in just two seasons—which precipitated the crash of the populations concerned and forced the closure of shore whaling stations in Australia and New Zealand in the early 1960's (Clapham et al., 2009).

It was actually Solyanik himself who first hired Mikhalev. He asked the young biologist if he had ever seen a whale. No, Yuri replied honestly, he had not. Solyanik sent him to sea anyway, at the minimum salary of 80 rubles a month. Mikhalev recounts the many abuses meted out on processing crews by Solyanik in his interminable quest for more "product." He was notorious for driving the whale processing crews to exhaustion, even when whaling in the oppressive heat of the tropics, and several men died as a result.

Solyanik stopped at nothing to ensure that his production targets were always met and exceeded. In one case, he read of an impending whaling agreement between Japan and the Government of Argentina, and soon after took the Sovetskava Ukraina fleet to the waters of the latter nation. It was the spring of 1962. There he found a large population of southern right whales that was probably recovering well from 19th century whaling, and killed every animal he could find. At other times, he intentionally gave false information to other Soviet whaling vessels regarding allegedly good whaling grounds in order to ensure that the highest catches were reserved for his own fleets. When the ships arrived, they found that the area had already been swept clean by Solvanik's catchers.

Nor was Solyanik above blatant nepotism. His son Gennady was appointed to the position of whaling inspector, thus creating a truly absurd situation: a man whose father was the worst plunderer of the world's whales being responsible for making sure that whaling regulations were followed. Solyanik even

created an unnecessary but highly paid position aboard the factory fleet for his attractive young wife Svetlana (Fig. 5). Not content with this, Solyanik even had a swimming pool constructed on the flying bridge of Sovetskaya Ukraina for his wife to play in, a scene that infuriated the crews toiling below in unbearable tropical heat. Still, says Mikhalev (who knew Svetlana well: Fig. 6), people rarely complained about this or any other flaunting of Solyanik's power, no matter how egregious; everyone was afraid of Solvanik, and they all knew that any trouble-maker would be disciplined and sent home. It is a sad commentary on Soviet domestic life at the time that, as terrible as conditions often were on the fleets, they were better (at least economically) than the alternative at home. The pay was better, the food was unlimited, and occasionally the fleets would put into foreign ports where—under careful supervision—the men could go ashore for a few hours to taste another way of life, and to buy large quantities of much-

coveted foreign goods to take back to the U.S.S.R.

Solyanik's downfall began with the publication of a long and highly critical article in the prominent Soviet newspaper Komsomolskaya Pravda (Sakhnin, 1965).<sup>3</sup> The article detailed his many abuses of people and the system; and, while Solyanik had very powerful friends, even they could not ignore such a public display of his transgressions. After much infighting and political maneuvering (during which the career of the article's author was effectively ruined), Solyanik was relieved of his elevated position in the whaling industry, stripped of his many Communist Party privileges, and exiled to a lowly position in command of a fishing vessel. His last years were spent in bitterness and paranoia.

It is not entirely true that no one suspected what the Soviets were up to during all those years. For one thing, they themselves provided some clues. For example, the end of the 1950's saw a strange paradox emerging: at a time when all the talk among whalers was of declining populations and of scaling back, the Soviets actually began adding factory ships to their Antarctic fleet. For years, the Soviets also successfully blocked a scheme to place independent observers on whaling ships, an effort that is easy to interpret today.

And occasionally they made mistakes. Two notable errors involved what were known as "Discovery" tags. These were uniquely numbered stainless steel cylinders fired from a shotgun into a whale to "mark" it (and named after the Discovery Committee, a British scientific body which instituted the tagging program). The idea was that some of the marked animals would subsequently be killed, anywhere from the next day to many years later. When a tag was recovered during the butchering process, the biologists could look at its number, consult the records, and discover where the whale had originally been marked. Since they also knew where it had been killed, they would thus learn something about the animal's movements. The recovery of many such tags could potentially provide valuable information about the structure and range of a population.

In 1962, the Soviets reported to the **International Whaling Commission that** they had recovered a number of Discovery tags in the previous Antarctic season. Among them were tag numbers 15898 and 21815, described as having come from a sperm whale and a fin whale, respectively—both legal species at the time. Commission records, however, showed unequivocally that both tags had been fired into humpback whales. Some people assumed that these mistakes represented simple transcription errors. An Australian biologist named Graeme Chittleborough took a rather less charitable view.

Chittleborough had worked for many years with the Australian whaling industry and was then the foremost authority on humpback whale biology. In 1965, he published a scientific paper summarizing extensive studies of two of the major humpback whale populations in the Southern Hemisphere (Chittleborough, 1965). Using his data to estimate mortality rates, Chittleborough observed that known catches of humpbacks were insufficient to account for the very high rates suggested by his calculations. After considering various possibilities, he concluded that the only reasonable explanation was that someone was taking large numbers of humpbacks illegally. Although he pointedly did not mention the country involved, Chittleborough cited the two Soviet Discovery tag "errors" as evidence that humpbacks were being taken and not reported.

Surprisingly, no one at the International Whaling Commission pursued Chittleborough's accusations. When the truth was finally revealed, even Graeme Chittleborough was staggered by the scale of the illegal catches on humpbacks, which had been hit more heavily than any other species. Over the years, the Soviets had reported taking 2,710 humpback whales in the waters of the Southern Hemisphere. The real total was more than 48,000.

Twenty-eight years after publication of Chittleborough's paper, in December

1993, Alexey Yablokov stood before a large group of marine mammal biologists at a conference in Galveston, Texas. Addressing the meeting's concluding banquet, he stunned his audience by revealing that the Soviets had engaged in massive illegal whaling for three decades. Yablokov, a respected biologist with a long history of research on whales, was then the Science Advisor to Russian President Boris Yeltsin. His speech was made possible only by the dissolution of the Soviet Union 4 years before. It also arose as the end result of a chance conversation.

In 1992, South African biologist Peter Best had bemoaned to a colleague that he was unable to publish a paper on southern right whale pregnancy because he had too small a sample size of fetuses from which to work. Right whales had been extensively hunted in previous centuries, and by 1900 were already considered comparatively rare in much of their historic range. Because the species had not been legally hunted since it was protected in 1935, biologists working on right whales had to rely on a small number of old whaling records. together with a handful of stranded specimens.

The colleague, Robert Brownell of NOAA's National Marine Fisheries Service, mentioned Best's problem to Yablokov one day. Yablokov's response took him completely by surprise. "Alexey told me that he could give Peter some data on right whale fetuses," says Brownell. "When I asked how many, the answer was several hundred." Any biologist familiar with whaling regulations would have been staggered by this number. For a species that had theoretically been protected for six decades, and hunted very little at all this century, the existence of data from several hundred pregnant females was almost inconceivable. As it turned out, more than 3,000 southern right whales had been killed, most by the whaling fleets under the command of Alexei Solyanik.

Thus emerged the truth about Soviet whaling. Recognizing the critical importance of setting the record straight, Brownell immediately began working with Yablokov to identify sources for

<sup>&</sup>lt;sup>3</sup>Fred Berzin's memoir (Berzin, 2008: 30–35) contains the entire newspaper article.

the true catch data. Although Yablokov was the one to finally break the silence (Yablokov, 1994), most of the details were furnished by other former Soviet whale biologists. Dimitri Tormosov, Fred Berzin, Vyacheslav Zemsky, and Yuri Mikhalev—a group Brownell jokingly refers to as the Gang of Four—had all witnessed the illegal catches firsthand from the decks of factory ships. Encouraged by Yablokov, they worked in various parts of the now-fractured Soviet empire to unearth the true catch data.

Berzin, the former head of the marine mammal laboratory in Vladivostok, would later write a grim but fascinating memoir that provides extensive details of the Soviet whaling campaign. He died in 1996, but the memoir was recently translated and published in the *Marine Fisheries Review* (Berzin, 2008).

Ironically, the Soviet obsession with keeping accurate records of their catches is today helping biologists to better understand—and perhaps ultimately to better assist—the populations that were decimated during this reign of terror. Information from legal catches is highly biased because of the prohibitions on taking certain species, or ages, or sizes of whale. Thus the data sets are often incomplete, and in some cases are of dubious accuracy. If a catcher took an animal that was below the legal minimum size limit, there was a powerful incentive to "add" a few feet to its true length and thus avoid costly fines. Because of the secret nature of Soviet operations and the fact that they killed everything they found, the resulting data have no such problems. Consequently, they can be used to address many questions that the legal records cannot.

Today, almost all of the Southern Hemisphere catch records have been corrected and published (Yablokov et al., 1998; Clapham and Baker, 2002). In addition, work is underway to obtain and analyze information on takes in the Northern Hemisphere. Although records are far more fragmentary, it is clear that the Soviets were far from idle north of the equator. Sperm whales in particular suffered greatly at the hands of Soviet factory fleets, with more than 200,000 estimated to have been

killed; of these, more than 100,000 may have been taken illegally. In all, Soviet illegal catches worldwide probably total well over 200,000 animals, and include several protected species. Almost half the Southern Hemisphere total were of humpback whales; but blue whales, sperm whales, sei whales, Bryde's whales, and right whales were all killed in large numbers. Everything that crossed the bow of a catcher boat was taken: any species, and any size, from young calves to the oldest animals. In keeping with the spirit of the best communist philosophy, the Soviets did not discriminate.

During the 20th century, the other whaling nations together killed more than two million whales in the Southern Hemisphere alone (Clapham and Baker, 2002). More than half of this total was made up of catches of the two largest species: 350,000 blue whales and a staggering three quarters of a million fin whales were slaughtered for meat, oil, margarine, pharmaceuticals, and a host of other commercial products. So were 160,000 humpbacks, 380,000 sperm whales, 180,000 sei whales, and around 160,000 others. Add to this the innumerable whales killed in the Northern Hemisphere and you have a slaughter which, in terms of sheer biomass, is greater than anything in the history of human hunting.

Against this background of wide-spread carnage, one might reasonably ask whether the 100,000 animals caught illegally in the Southern Hemisphere by the Soviet Union, representing just 5% of the region's total catch, made much of a difference to the populations concerned. A similar question could be posed with regard to the North Pacific, where unreported catch totals (especially for sperm whales) may have been even larger. The answer, in at least some cases, is almost certainly yes.

For one thing, the bulk of the Soviet catches were made at a time when the populations of several species were already in serious decline from the excesses of legal whaling. In particular, humpback, blue, and southern right whales suffered the double blow of huge regular catches followed by

extensive unreported Soviet takes. In the North Pacific, sperm whales were so devastated by Soviet whaling, with reproductive females killed en masse, that one Soviet scientist noted that they had "left a desert in their wake" (Berzin, 2008). At the very least, then, the illegal catches served to seriously inhibit the recovery of these populations.

Encouragingly, both humpback and southern right whales seem to be making a comeback in most places where they are being studied. In some areas, however, such as the waters off the island of South Georgia and around New Zealand, some previously abundant species are today represented by remnant populations (Clapham et al., 1999). Whether they will eventually recover is, at this point, anyone's guess.

One population that may not is that of the right whale in the eastern North Pacific. Right whales are indisputably among the rarest of all the world's whales. Slow and easy to catch, and yielding a huge quantity of high quality oil and baleen, right whales were so named by early whalers simply because they were the "right" whale to kill. They were hunted in the North Atlantic as early as the 11th century, and just as intensively in the North Pacific starting in the 1830's. By 1900, northern right whales were already so rare throughout their range that they had ceased to be a principal target for whalers anywhere. Like their Southern Hemisphere counterparts, they were completely protected from hunting by international agreement in 1935.

In 2001, a group of scientists including one of us (PJC) undertook a review of all records of right whales in the North Pacific this century (Brownell et al., 2001). The exercise revealed an alarming trend. Although right whales have never been numerous in the eastern part of this ocean during the 20th century, reasonable numbers were being sighted for many years. Whale catchers searching for other species reported seeing modest concentrations of right whales each year, particularly in the Bering Sea, the Aleutian Islands, and the Gulf of Alaska. Around 1964, however, a dramatic drop in sightings is evident.

Despite the fact that search effort actually increased, there were barely 60 observations of right whales in the entire eastern North Pacific from 1964 to 2001, when our paper was published.

In light of what we now know, it was not hard to guess the nature of the calamity that overtook the right whale population in the early sixties. Nor was it difficult to interpret a large number of right whale "sightings" reported by Soviet whalers around this period. There, as elsewhere, the whalers went beyond mere observation of these animals and killed as many as they could, with disastrous consequences. Thanks to Nikolai Doroshenko, another former Soviet biologist, we now know that the U.S.S.R. killed 372 right whales, most in a 3-year period beginning in 1963 (Doroshenko, 2000). These animals, which were taken in the Bering Sea and Gulf of Alaska, probably comprised the bulk of the existing population (Ivashchenko et al., 2007).

In 1835, an American whaling ship named Ganges became the first of her kind to arrive in the Pacific Northwest. and there the awestruck captain reported seeing "a million right whales" (Webb, 1988). While this was clearly a gross exaggeration, the statement is testament to the abundance of this species in the North Pacific prior to the first whaling catches. Less than two centuries later. the species is now so rarely sighted in the region that single observations have been publishable in scientific journals. We cannot be sure, but it is entirely possible that when the few remaining right whales in the eastern North Pacific live out their lives and die, the species will be gone forever from these waters. Although Soviet whalers were certainly not responsible for the bulk of the catches on this population, they may well possess the dubious distinction of having effectively finished it off.

Sovetskaya Ukraina made her maiden voyage in 1959. Twenty-eight years and some 130,000 whales later, the old factory ship ended her life as a whaler and was converted to other uses. Finally, in 1995 she was sold for scrap.

The demise of *Sovetskaya Ukraina* was attended by rather more sentimen-



Figure 7.—Sovetskaya Ukraina at Aliaga, Turkey, prior to breaking up, August 1995. Photo by Selim San.

tality than had been accorded the whales. Before leaving Odessa, the vessel was given a ceremonial farewell, and those who had worked aboard her were offered souvenirs ranging from clocks to navigator's rules to cartridge cases from the shells used to fire harpoons.

Then, the ceremony over, *Sovetskaya Ukraina* was towed to a shipyard in Turkey (Fig. 7). There, in a final irony, the vessel that had presided over the destruction of so many whales met a fate oddly like that of her longtime quarry. Under the blue light of acetylene torches, the decks that had once run with the blood of giants were themselves systematically carved up and disposed of.

If there is a lesson to be learned from this particularly shameful chapter of whaling history, it is that international agreements are essentially worthless unless accompanied by rigid provisions for inspection and enforcement. Today, there are insistent calls by Japan and some other nations for a resumption of commercial whaling, and this topic is hotly debated within the IWC (Clapham et al., 2007). One of the major issues revolves around the IWC's "Revised Management Scheme," the set of procedures and controls that would have

to be established should the current moratorium on whaling be lifted.

Within this debate, there are still many voices in the international community arguing that self-regulation is entirely adequate in environmental matters. Of the many images that one could summon to counter such assurances, few are as powerful as that of Soviet whaling fleets, and 200,000 dead whales.

## Acknowledgments

We are very grateful to Yuri Mikhalev for his friendship and for providing such a wealth of detail about Soviet whaling. We also thank Bob Brownell for his many insights into this topic. This article arose from an oral history project funded by a grant to Seastar Scientific from the International Fund for Animal Welfare (IFAW); we are most grateful to IFAW, and especially to Patrick Ramage, for their support of this work.

## **Literature Cited**

Berzin, A. A. 2008. The truth about Soviet whaling. *In* Y. V. Ivashchenko, P. J. Clapham, and R. L. Brownell, Jr. (Editors), The truth about Soviet whaling: a memoir, p. 1–59. [Transl. by Y. V. Ivashchenko]. Mar. Fish. Rev. 70(2). Brownell, R. L. Jr., P. J. Clapham, T. Miyashita, and T. Kasuya. 2001. Conservation status of North Pacific right whales. J. Cetacean Res. Manage., Spec. Iss. 2:269–286.

- Chittleborough, R. G. 1965. Dynamics of two populations of the humpback whale, *Megaptera novaeangliae* (Borowski). Aust. J. Mar. Freshw. Res. 16:33–128.
- Clapham, P., and C. S. Baker. 2002. Modern whaling. *In* W. F. Perrin, B. Würsig, and J. G. M. Thewissen (Editors), Encyclopedia of marine mammals, p. 1,328–1,332. Acad. Press, San Diego, Calif.
- , S. Childerhouse, N. Gales, L. Rojas, M. Tillman, and R. L. Brownell, Jr. 2007. The whaling issue: conservation, confusion and casuistry. Mar. Pol. 31:314–319.
- , Y. Mikhalev, W. Franklin, D. Paton, C. S. Baker, Y. V. Ivashchenko, and R. L. Brownell, Jr. 2009. Catches of humpback whales, *Megaptera novaeangliae*, by the Soviet Union and other nations in the Southern Ocean, 1947–1973. Mar. Fish. Rev. 71(1): 39–43.
- , S. B. Young, and R. L. Brownell, Jr. 1999. Baleen whales: conservation issues and the status of the most endangered populations. Mammal Rev. 29:35–60.
- Doroshenko, N. V. 2000. Soviet whaling for blue, gray, bowhead, and right whales in the North Pacific Ocean, 1961–1979. *In A. V. Yablokov* and V. A. Zemsky (Editors), Soviet whaling data (1949–1979), p. 96–103. Cent. Russ. Environ. Pol., Mar. Mammal Counc., Moscow [in Russ. and Eng.].
- Ivashchenko, Y. V., P. J. Clapham, and R. L. Brownell, Jr. (Editors). 2007. Scientific reports of Soviet whaling expeditions in the North Pacific, 1955–1978. U.S. Dep Commer., NOAA Tech. Memo. NMFS-AFSC-175, 36 p. [transl. by Y. V. Ivashchenko].
- Kondo, I., and T. Kasuya. 2002. True catch statistics for a Japanese whaling company in

- 1965–78. Int. Whaling Comm., Camb., U.K., Pap. SC/54/O13.
- Sakhnin, A. 1965. During and after the expedition. Komsomolskaya Pravda, 21 July 1965.Tomilin, A. G. 1957. Mammals of the USSR
- Tomilin, A. G. 1957. Mammals of the USSR and adjacent countries. Vol. IX, Cetacea. Izdatel'stvo Akademi Nauk SSR, Moskva [in Russian]. Israeli Prog. for Sci. Transl., Jerusalem, 717 p.
- salem, 717 p.
  Webb, R. L. 1988. On the Northwest: commercial whaling in the Pacific Northwest 1790–1967.
  Univ.BritishColumbiaPress, Vancouver, 425 p.
- Yablokov, A. V. 1994. Validity of whaling data. Nature 367:108.
- , V. A. Zemsky, Y. A. Mikhalev, D. D. Tormosov, and A. A. Berzin. 1998. Data on Soviet whaling in the Antarctic in 1947–1972 (population aspects). Russ. J. Ecol. 29: 38–42.