Grant Report for the Alameda County Fish and Game Commission:
Resolving Negative Human-Wildlife Interactions in Alameda County - 2025
10/20/25

Summary

International Bird Rescue was awarded a $5,000 grant from the Alameda County Fish and Game Commission. Our application was submitted in January 2025 and upon the recommendation of the Commission, the County Board of Supervisors approved the request for funding. We received the grant via check in April 2025.

The goal of this project is to address known, ongoing Human-Wildlife Conflicts (negative human-wildlife interactions) in Alameda County. The grant's purpose was to offset nutrition, medicine, rehabilitation, and veterinary medical supply costs for birds admitted from within Alameda County to our San Francisco Bay-Delta Wildlife Center in Fairfield. We are grateful for the ongoing support, and are pleased to share this final grant report with you!

As described in our original application, and in alignment with Fish and Game Code Section 13103(b), **all Commission funds were to be used to pay for expenses necessary to provide temporary emergency treatment and care of injured or orphaned wildlife**, including a portion of both a) critical medicine, surgical and rehabilitation supplies, and nutrition, and b) clean, temperature-controlled water to maintain consistent rehabilitation environments for the wild patients in our care.

Project Overview

With Alameda County support, we addressed known, on-going Human-Wildlife Conflicts (negative human-wildlife interactions) in Alameda County, and addressed numerous elements of California's Fish and Wildlife Code (especially in section 13103), as described in our original application.

Our San Francisco Bay-Delta Wildlife Center functions as a "referral hospital," treating the most challenging cases that are beyond the capacity or skills of other regional wildlife centers and clinics, and releasing patients back into the wild once they are successfully rehabilitated. Unlike traditional veterinary clinics, our patients come to us with no funding, no insurance, and no one responsible for paying the bill. Birds injured by human impact (as the majority of our cases are) require capable hands and large volumes of food and vitamins in order to be rehabilitated successfully and returned to the environment. Only with philanthropic support from concerned citizens, foundations, corporations, and municipal agencies are we able to meet the demand for our services.

In our last, complete fiscal year (FY25: 10/1/24-9/30/25), we admitted 2,950 wild, native, aquatic birds for care (1,769 in Northern California, and 1,181 in Southern California), on par with historical averages. The average length of time in care for all patients during this reporting period was 22 days (which is a 10% increase from 19.67 days the prior year). Patients represent 94 unique species, including:

- **Federally and State-listed Endangered species** California Least Tern
- **Federally Threatened species** Western Snowy Plover
- **IUCN (International Union for Conservation of Nature) Endangered Species** Ashy Storm-Petrel
- **IUCN Near-Threatened species** Elegant Tern
- "**Birds of Conservation Concern**" in our Bird Conservation Regions of "Coastal California" and "California Current:" Black-vented Shearwater, Brandt's Cormorant, Burrowing Owl, Clark's Grebe, Western Grebe, Guadalupe Murrelet, California Gull, Heermann's Gull, Western Gull, Laysan Albatross, Black-footed Albatross, and Willet

County-specific Details

During our FY25: 10/1/24-9/30/25, **we rescued and rehabilitated 278 wild, native birds from Alameda County**. This is a return to historical averages (~250/year over the past 5 years), now that we have well-established health and safety protocols related to Highly Pathogenic Avian Influenza Eurasian strain H5N1 2.3.4.4.b (aka HPAI, or "Bird Flu"). The **average length of care** for patients rescued from Alameda County during this most recent one-year period was 12 days.

Patients were transferred to us for treatment from the general public and from our Alameda County referring partners: East Bay Regional Parks, Alameda Animal Control, Berkeley Animal Control, Montclair Veterinary Hospital, Oakland Animal Control, Ohlone Wildlife Center in Fremont, Oakland Zoo, and Sulphur Creek Nature Center in Hayward. In the past we have received patients from the Rotary Nature Center and Wildlife Refuge at Lake Merritt, but not since their closure due to a fire in late 2023. **Rescue locations** included Oakland, Alameda, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Pleasanton, Piedmont, San Leandro, and Union City.

The most **common causes of injury** include orphaned (including fell from nest), birds that suffer blunt force traumas (from human cruelty, hit by vehicles, or from unknown/indeterminate sources), starvation from loss of habitat, disease, and fishing hook and line entanglements,

Rescued animals represent **29 different species**:
5 – **Endangered species:** California Least Tern (Federally and State-listed), Ashy Storm-Petrel (IUCN)
38 – "**Birds of Conservation Concern**" in our Bird Conservation Regions of "Coastal California" and "California Current:" 1 – Brandt's Cormorant, 11 – California Gull, 25 – Western Gull, 1 – Willett
66 – Herons – Black-crowned Night Heron, Great Blue, Green
61 – Egrets – Cattle, Great, Snowy
54 – Ducks –Mallard, Ruddy, Wood
28 – Canada Goose
6 – Brown Pelican
5 – Double-crested Cormorant
8 – two each: Cackling Goose, Common Murre, Killdeer, Marbled Godwit
7 – one each: Dunlin, Gadwall, Pied-billed Grebe, Pigeon Guillemot, Ring-billed Gull, Sooty Shearwater, Wilson's Snipe

Program Methodology

We were able to efficiently and effectively rescue and rehabilitate so many wild birds because of our well-established response protocols, developed through years of direct, hands-on experience:

1. **Rescue**: Volunteers, citizens, and other rescue agencies transport injured and abandoned birds to our Wildlife Centers.

2. **Triage**: Birds first undergo a triage assessment by our professional veterinary staff where vital signs are taken, the bird's weight and measurements are recorded, and blood work is often done. A medical treatment plan and a nutrition plan are created specific to each bird.

3. **Medical Intervention**: Typically initiated after the first 24-48 hours in care, so that the initial trauma of capture can abate (remaining mindful that these are wild animals), and we can be assured that the animal has the strength to endure the stress of a medical procedure such as washing or surgery.

4. **Recovery**: Treated birds move to a recovery area, just as a patient would be at a human hospital. Here, their progress is closely monitored until they are ready to move to a rehabilitation area.

5. **Rehabilitation**: Birds heal their wounds and gain strength in our predator-proof aviary enclosures.

6. **Release**: When birds have healed and matured to be capable of survival on their own, they are released back into the wild at species-appropriate locations.

Three Notable Challenges We Face:

1. Our biggest challenge continues to be **Highly Pathogenic Avian Influenza (HPAI, aka "Bird Flu")** Eurasian strain H5N1 2.3.4.4.b. What was first hoped to be a temporary or seasonal event is now a permanent, deadly threat to North America's wild birds. Since we've reported on HPAI in the past, we won't go into detail here, except to say that **as a result of our extraordinary efforts, we have been successful in keeping Bird Flu from infecting our patient populations while they are in care.**

2. Large-scale, unpredictable crisis events like the **2025 Pelican Crisis** also prove challenging, as this was the third time in four years that this iconic species faced such a challenge. This year was unique in that not only were the patients arriving showing signs of starvation, but were also presenting with complications from domoic acid and saxitoxin poisoning from harmful algae blooms.

3. A third challenge is the changing philanthropic landscape. Three of our major corporate supporters are either leaving California altogether, or are significantly reorganizing their business operations. Federal reimbursement to compensate us for an oil-spill incident we responded to ten years ago was frozen and delayed by the current administration, further taxing our reserves and our cash flow.

Our Top Priorities And Goals For The Coming Year Are:

Three goals run through everything we do:

- Minimize and mitigate human and industrial impacts on wildlife
- Conserve local, regional, and global biodiversity
- Inspire environmental conservation and stewardship

In addition to these three "evergreen" goals, in 2026 we look to:

1. **Maintain peak readiness** to respond to the unpredictable but sadly-inevitable environmental crises, such as oil spills, chemical contaminations, or species collapses.

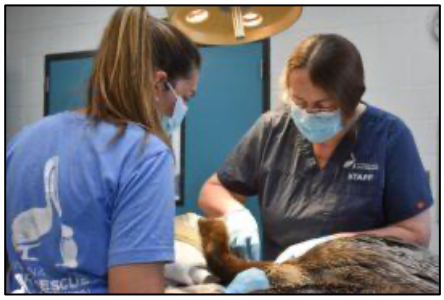
2. **Secure sufficient, diversified financial support to keep our essential work sustainable.**

3. **Retain the best, most-qualified personnel.** Our people and their experiences are our most valuable asset. Quite simply, skilled, caring, professionally trained people are key to giving birds what they need to heal. Tangibles like medicine, food, and nutrition are also vital to our work, but it is our people who innovate new solutions to the changing and increasing threats to wildlife. We hope to be able to add a full-time veterinarian to our staff.

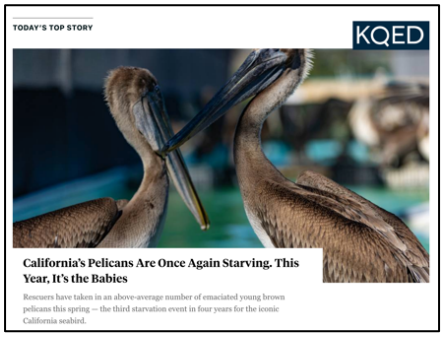
Other Organizational Activity:

Please see the attached **Impact Report: Recent Crises and Responses** for additional images and details about how we are dealing with the ongoing deadly threat facing wild birds: *Highly Pathogenic Avian Influenza (aka HPAI or Bird Flu)*, and also the *2024 and 2025 Brown Pelican Crises,* with notable media which includes:

SF Chronicle: https://www.sfchronicle.com/california/article/brown-pelicans-starvation-20295659.php
Alameda Post: https://alamedapost.com/features/nature/alamedas-california-brown-pelicans/
KQED Radio: https://www.kqed.org/science/1996948/californias-pelicans-are-once-again-starving-this-year-its-the-babies



Although most pelicans arrive starving and sick, many arrive with wing fractures and fish hook-inflicted wounds. Director of Research and Veterinary Science Dr. Rebecca Duerr and our wildlife rehabilitation staff works tirelessly to aid these injuries.



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Impact Report:
Recent Crises and Responses

As a global leader in addressing human/wildlife conflicts, International Bird Rescue headed to South Africa in October to lead multiple sessions at the **Effects of Oil on Wildlife (EOW) Conference**. Four senior team members freely and generously shared their expertise in oiled wildlife response and rehabilitation. We're honored to contribute to this vital international conversation on protecting wildlife from oil pollution.

1. Bird Flu: Highly Pathogenic Avian Influenza (aka HPAI)

We are now in our fourth consecutive year of responding to Highly Pathogenic Avian Influenza Eurasian strain H5N1 2.3.4.4.b, also known as HPAI or "Bird Flu."

Bird Flu requires us to quarantine and assess every arriving patient, adding significant time and cost.

What was hoped to be a temporary or seasonal event is now a permanent, deadly threat facing North America's wild birds. HPAI can be carried from place to place on human shoes and clothing, even on vehicle tires. Crowded conditions at breeding areas and other areas where wild birds congregate are spots where they are at high risk of this disease spreading and causing mass mortality[1]. This HPAI virus strain is not yet considered to be a high risk to humans**,** but it is *highly-contagious* among birds, *nearly always fatal*, and is mutating to infect other animals.

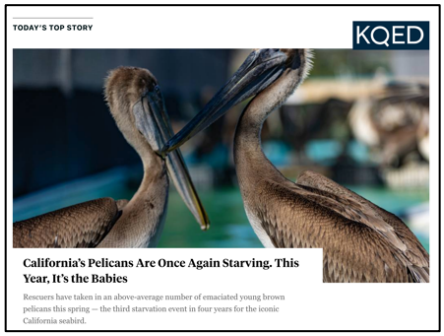
Wearing PPE: personal protective equipment to guard against infection, staff examine a patient in a special quarantine area.

Fortunately, our best-in-class health and safety protocols (seen here) protect our current clinic patients, our staff, and reduce the likelihood of infected birds entering our facilities.

To learn more about our extraordinary efforts to keep our patients and our personnel safe, read our Blog *Not All Heroes Wear Capes – Suiting Up To Protect From Bird Flu*[2]*:*

2. California Brown Pelican Crises: 2025, 2024, and 2022

In three of the last 4 years, van-loads of California Brown Pelicans arrive daily from other regional wildlife centers in both Northern and Southern CA. Most arrive starving, weak, anemic, can't maintain their body temperature, and are severely emaciated (i.e., *half* their normal body weight). 2022 intakes totaled 390 patients, 2024 intakes totaled 425 patients, and 2025 intakes totaled 273 patients[3].



In each incident, we observe symptoms of starvation which point to a food issue. The birds are failing to find enough to eat and take extra risks when foraging, resulting in significant fishing hook, line, and net entanglements. We continue to work with researchers in the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife to determine root causes.

Notable 2024 patient statistics include: 69 with fractures, 100 with fishing gear injuries, 68 with wounds of unknown origin, 15 oil-contaminated, 1 gunshot, 80 surgical procedures (14 of which were pouch lacerations) on 65 different patients. One 2024 pelican even "crashed" onto the field of a San Francisco Giants Major League Baseball game. **In 2025, pelican patients also presented with complications from domoic acid and saxitoxin poisoning from harmful algae blooms.**

Brown Pelicans have been impacted by large-scale perils in the past. They were added to the endangered species list in 1970 due to DDT exposure (an issue our team continues to research) that caused their breeding numbers to plummet. It wasn't until 2009 that they were removed from the list. Since 2009, we have attached special blue leg bands to all released Brown Pelicans to help citizen-scientists track them in the wild as part of our *Blue Banded Pelican Program*.

Top: Bird Rescue Wildlife Rehabilitation Technician Claire Koykka works with volunteer Daphna Wohl to examine one of the 400+ Brown Pelicans in care during the 2024 crisis.

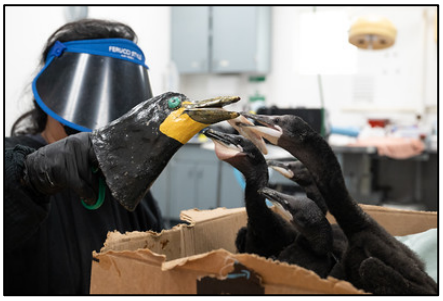
Bottom: Although most pelicans arrive starving and sick, many arrive with wing fractures and fish hook-inflicted wounds. Dr. Rebecca Duerr works tirelessly to aid these injuries.

All released birds are banded with Federal metal bands for the Federal Bird Banding Lab, as well as blue bands for our *Blue Banded Pelican* citizen science research program. We encourage the public to report all banded bird sightings on our website[4], which we share with the Federal Bird Banding Lab.

Thanks to extraordinary efforts, most patients are released back to the wild at species-appropriate locations. Over 80 re-sightings have already been confirmed, including patient 3H9 in Newport, OR. Patient data from our specialized RaptorMed software shows that the average length of stay for patients is over 36 days: a 3x increase from historical averages, due to the severity of the crisis. Notable media included: KQED Radio, ABC7-TV SF, NBC-TV, USA Today, and KPIX5-TV SF[5].

3. Double-crested Cormorant Rescue 2025

In March 2025, we admitted over 60 Double-crested Cormorant eggs and chicks to our Los Angeles Wildlife Center that were rescued from a failing tree in Marina del Rey by the Los Angeles County Department of Beaches and Harbors. Prominent news coverage included: KTLA-5 LA, ABC News, KFI AM640, LAist, Santa Monica Daily Press, Yahoo News, and LA Times, and many others[6].



Staff wear special costumes and use puppets to hand-feed cormorant chicks every hour to prevent habituation to humans and to keep chicks ready for release back to the wild.

4. Bird HelpLine Continues to Support Effective Intervention

Through our free Bird HelpLine, members of the general public have an immediate, practical, ethical, and effective means to reduce animal suffering. When they encounter an animal in distress, they connect with one of our professionally-trained staff, or a specially-trained rehabilitation volunteer, who diagnoses their problem and responds with best-practices, in real time.

We use these 1:1 opportunities to provide personalized *animal rescue training*, describe what immediate-and-actionable steps are appropriate for the specific animal-in-question, and offer callers a choice about participating in future conservation activities, such as ongoing monitoring, citizen science, or debris clean-up and removal.

In our latest annual assessment, the Bird HelpLine received 3,860 calls for service, a 20% increase over the prior year! This data proves that through the Bird HelpLine, we enable the public to rescue individual, live animals, reduce animal pain and stress, and improve animal welfare.

Live, real time interaction is a key to success. We reinforce positive and humane conservation actions at the moment of most acute need (when people encounter an animal in need of assistance, and at a point in time when intervention can make a life-saving difference).

We can also correct and address ecological misconceptions in real-time by actively taking advantage of someone's immediate interest and attention, rather than passively distributing information. This approach turns average citizens into conservation champions.

If you find a bird in need, please consult with a wildlife rehabilitation center in your area for assistance, or **simply call our free Bird HelpLine: 866.SOS.BIRD (866-767-2473)**

5. New Study Shows Plastic Pollution Leaves Seabirds with Brain Damage Similar to Alzheimer's

Many of the patients we admit for care have ingested plastic waste. A 2025 study published in the reputable journal Science Advances[7] adds to the growing evidence of the devastating impact of plastic pollution on marine wildlife. In addition to starvation (as the undigestible plastic displaces other nutrition), plastic pollution contributes to "patterns of proteins [found through blood tests] that were very similar to those in people that have Alzheimer's or Parkinson's disease. It's almost equivalent to a small child having Alzheimer's," said Alix de Jersey, the PhD candidate who led the study.

6. Pelicans In Peril Provided Life-Saving Treatment: The Story of Blue, A Victim of Human Cruelty

In March 2024, a crew member on the sport fishing boat *Truline* identified a Brown Pelican in distress. Acting quickly, they captured the bird and delivered it to our LA Wildlife Center. The bird was unable to feed itself due to a massively slashed pouch, and was nicknamed "Blue" for its temporary ID band. Blue's injuries included straight cuts parallel to the jaw, running all the way back to the neck, and cutting into the feathered skin of the neck itself on both sides; such linear cuts indicate they were caused by a knife, machete, or other sharp object. The wounds were scabbed and about 4-7 days old.

Dr. Rebecca Duerr examines "Blue" the California Brown Pelican patient. The tube in the pelican's mouth area carries oxygen and anesthesia during the surgery.

Director of Research and Veterinary Science Dr. Rebecca Duerr rushed Blue into surgery. It took more than 400 stitches to repair Blue's pouch. Although the initial surgery was successful, a second surgery (requiring more than 100 additional stitches) was required to complete the repair.

Blue received her permanent Blue Band 2E8 (as part of our ongoing citizen science *Blue Banded Pelican Program*) and was released[8] back to the wild in April 2024. Media covering our response to this human cruelty event included FOX11LA, NBC4LA-TV, KFI640AM Radio, CBS-KCAL-TV, and the Sacramento Bee, among others.

Blue is just one of many pelican rehabilitation success stories, that demonstrate that intervention makes a life-saving difference:

- Brown Pelican C57, the **first blue-banded pelican to achieve 5,000 days back in the wild** (over 13 years) after leaving our care on December 16, 2009!
- Brown Pelican E17, first treated in LA in 2010 for an astounding 259 days, sighted in 2017 in a breeding colony in Mexico 7 years after its care, and again in September 2018 near San Francisco.
- Brown Pelican M38, first treated in 2011 and sighted seven years later in 2018 in a breeding colony with 2 chicks on Santa Barbara Island by California Institute of Environmental Studies scientists.
- Brown Pelican E43, first treated for a sea lion bite in San Pedro in 2011, and sighted 14 years later in July 2025 in Half Moon Bay, some 400 miles away.
- Brown Pelican 4K6, rescued from Santa Cruz and released in Berkeley, CA in July 2024 and spotted exactly one year later in Coos Bay, Oregon on 7/17/25.

7. Oilapalooza Conference in Bakersfield, CA in October 2024

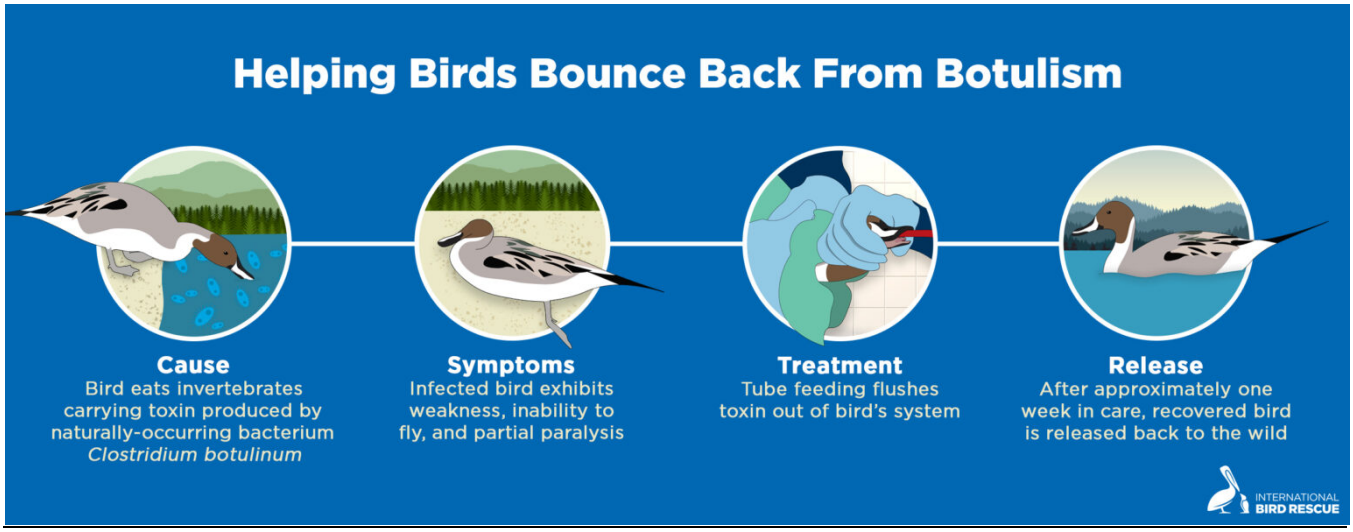
Our team attended Oilapalooza, the Oiled Wildlife Care Network's (OWCN) biennial 2-day spill response conference, leading sessions on managing Highly Pathogenic Avian Influenza aka Bird Flu, and on Diversity, Equity, Inclusion, and Accessibility in wildlife rehabilitation. We are one of the founding members of OWCN, established in partnership with the CA Department of Fish and Wildlife – Office of Spill Prevention and Response. OWCN was formed as a reaction to the devastating 1989 Exxon Valdez oil spill[9] in Prince William Sound, Alaska and the 1990 American Trader spill[10] in Huntington Beach, CA.

L to R: Finn Watson, Wildlife Rehabilitation Technician; Kelly Beffa, San Francisco Bay-Delta Wildlife Center Manager; Dr. Rebecca Duerr, Director of Research and Veterinary Science; Lisbeth Montenegro, Wildlife Rehabilitation Technician; and Jennifer Martines, Wildlife Rehabilitation Technician.

8. Providing Expert Support at Tulare Lake Avian Botulism Event

In mid-2023, a botulism outbreak unfolded in California's Central Valley. Because of extraordinary winter runoff from the Sierra, typically dormant Tulare Lake grew to the size of Lake Tahoe. It swallowed up working farms, and was an attractive stop for millions of migrating birds. Sadly, the warm, stagnant water and ample decaying organic matter were perfect conditions for the naturally-occurring bacteria *Clostridium botulinum.* With our expert supportive care matched to the severity of symptoms, many birds (including ducks, grebes, stilts, and ibis) recovered quickly and were released within two weeks. Public support keeps us ready to deploy to emergency events like this.

Rehabilitation Technician Emily Werdal (left) and Wildlife Center Manager Kylie Clatterbuck tube-feed a Black-necked Stilt rescued from the Tulare Lake Avian Botulism Event.



9. Long Beach Harbor Seabird Rescue

In May 2021, a major nesting site for both near-threatened Elegant Terns and Least Terns at Bolsa Chica Ecological Reserve in Southern California was disturbed by human impact: a crashed drone. Thousands of terns abandoned an estimated 2,000 eggs. The Bolsa Chica Elegant Terns fled to other nesting sites, including two barges located in busy Long Beach Harbor, approximately 500 feet offshore and not accessible by land. This seems like good news, but two months later young terns were falling off of the barges, and dead chicks were washing ashore.

Nesting Elegant Terns on barge located in Long Beach Harbor.

Our partners at Los Cerritos Wetlands Stewards and El Dorado Nature Center were first on the scene and immediately contacted us because of our expertise and hands-on knowledge that comes from working with waterbirds on a daily basis. Just a year earlier, we published an important scientific paper on a rescue-and-rehabilitation effort that led to a notable success: the post-release survival and breeding of a group of Caspian Terns[11]. We activated our response teams.

As the crisis unfolded, it became clear that *thousands* of young birds were at risk. The chicks, still without flight feathers and unable to get back up onto the barge, would have drowned without rescue. Our staff were on the water each day for weeks, performing search and collection, and transporting chicks to our Los Angeles Wildlife Center for care.

Some of the young Elegant Terns in care at our Los Angeles Wildlife Center.

At our Los Angeles Wildlife Center, each young bird was evaluated, dried, and warmed to stabilize its condition. Tern chicks require hand feeding, and can easily habituate and become accustomed to human interaction. This is unsafe for wild animals, so we took extra precautions to cover our faces and bodies during feeding so these birds would remain wild.

The total number of birds affected, as well as the time frame of the crisis, far exceeded our initial expectations, using more human and financial resources than originally anticipated. Another challenge was that 638 of the near-threatened Elegant Tern chicks required rescue more than once. We adapted by designing and installing special "haul-outs:" small custom-built platforms that floated at water-level so that baby birds who fell in the water could safely get back out.

Two key outcomes of our crisis response effort were the:

- Rescue of 3,108 near-threatened Elegant Terns (exceeding our early estimate by nearly seven-fold).
- Successful return of 3,003 Elegant Tern chicks back to the wild: a release rate of 96.6%!

Four years later, survivors of this incident continue to be spotted in the wild, including one spotted 400 miles away by a citizen-scientists at Don Edwards San Francisco Bay National Wildlife Refuge in San Mateo County.

References and Links

1: https://www.bbc.com/news/uk-scotland-edinburgh-east-fife-61829551 [Avian flu hits world's largest gannet colony...]
2: https://www.birdrescue.org/not-all-heroes-wear-capes-suiting-up-to-protect-from-bird-flu/
3: https://www.kqed.org/science/1996948/californias-pelicans-are-once-again-starving-this-year-its-the-babies
4: https://www.birdrescue.org/contact/found-a-bird/reporting-a-banded-bird/
5: https://www.youtube.com/watch?v=6mIHkISgv5M [Pelican Crash News Report]
6: https://vimeo.com/1068004206 [Double-crested Cormorant Rescue]
7: https://www.theguardian.com/environment/2025/mar/12/plastic-pollution-leaves-seabirds-chicks-with-brain-damage-similar-to-alzheimers-study-aoe [Plastic pollution leaves seabirds with brain damage similar to Alzheimer's, study shows]
8: https://www.youtube.com/watch?v=byqdUHO-dx4 [Blue the Pelican's Release Event]
9: https://www.birdrescue.org/1989-exxon-valdez-alaska/
10: https://www.birdrescue.org/1990-american-trader-huntington-beach-ca/
11: https://www.birdrescue.org/new-scientific-paper-published-caspian-terns-saved-rehabilitated-and-released-by-international-bird-rescue-are-surviving-and-breeding/

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