

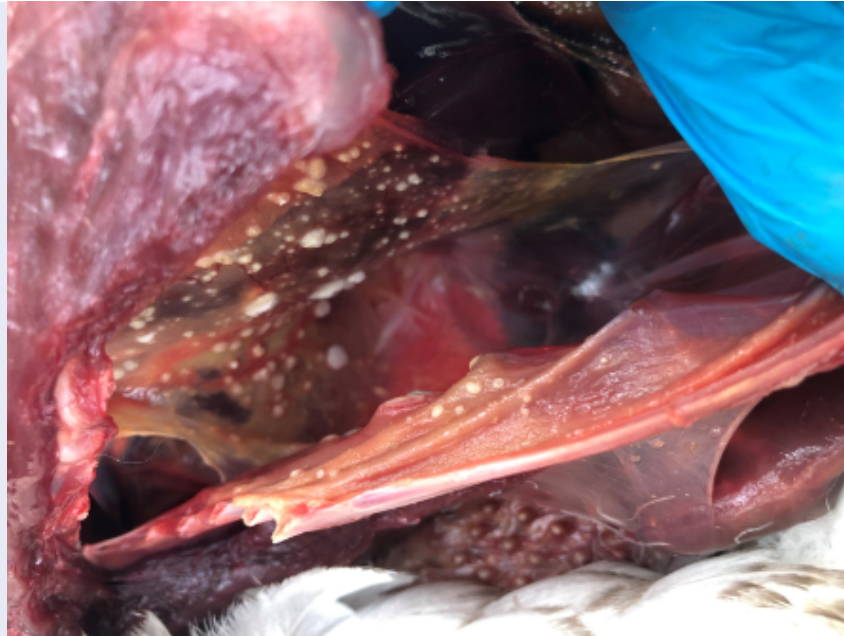
Table S1: The number of Northern Gannet *Morus bassanus* patients admitted per facility in Florida from 2009 to 2021, in addition to the percentage of total patients that represented, the years included, and the annual average patient volume. The table also includes a separate section showing the admissions of Gannets from a single facility in Florida prior to 2009. *Average Years across 20 facilities.

| Facility Name | N | % | Years Reporting | Annual Average |
|--|--------------|------------|-----------------|----------------|
| Florida Wildlife Hospital and Sanctuary | 1,034 | 30.0 | 13 | 79.5 |
| Marine Science Center | 680 | 19.7 | 13 | 52.3 |
| South Florida Wildlife Center | 494 | 14.3 | 14 | 35.3 |
| Busch Wildlife Sanctuary Inc | 333 | 9.7 | 11 | 30.3 |
| Treasure Coast Wildlife Hospital, Inc. | 175 | 5.1 | 13 | 13.5 |
| Pelican Harbor Seabird Station | 113 | 3.3 | 13 | 8.7 |
| Noah's Ark Wildlife Rescue and Rehabilitation | 106 | 3.1 | 7 | 15.1 |
| CROW (Clinic for the Rehabilitation Of Wildlife) | 103 | 3.0 | 13 | 7.9 |
| Emerald Coast Wildlife Refuge Inc | 91 | 2.6 | 13 | 7.0 |
| Remaining 20 Facilities | 320 | 9.3 | 7.7* | 2.1 |
| Total | 3,449 | 100 | 283 | 13.1 |
| Pelican Harbor Seabird Station (Prior to 2009) | 313 | | 20 | 15.7 |
| Grand Total | 3,762 | | 303 | 12.4 |

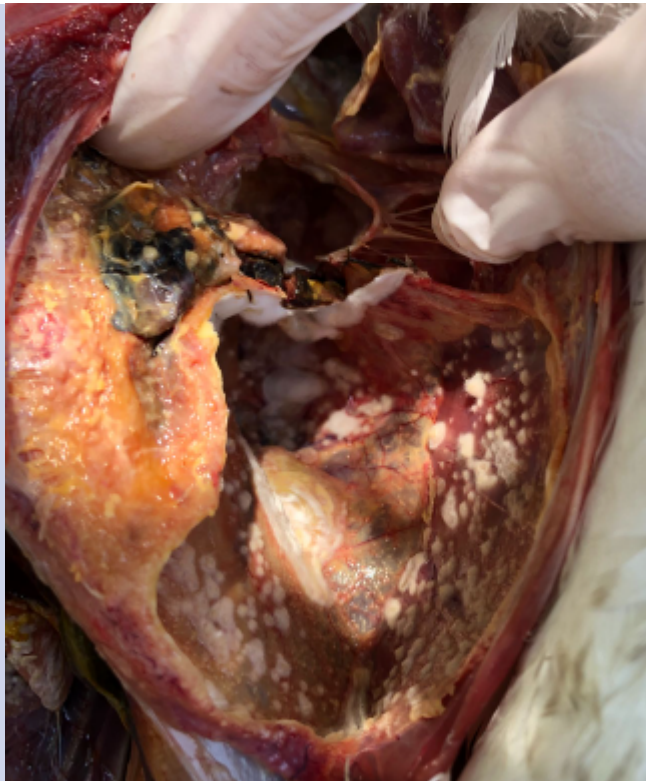
Table S2: Aspergillosis: defined levels of infection



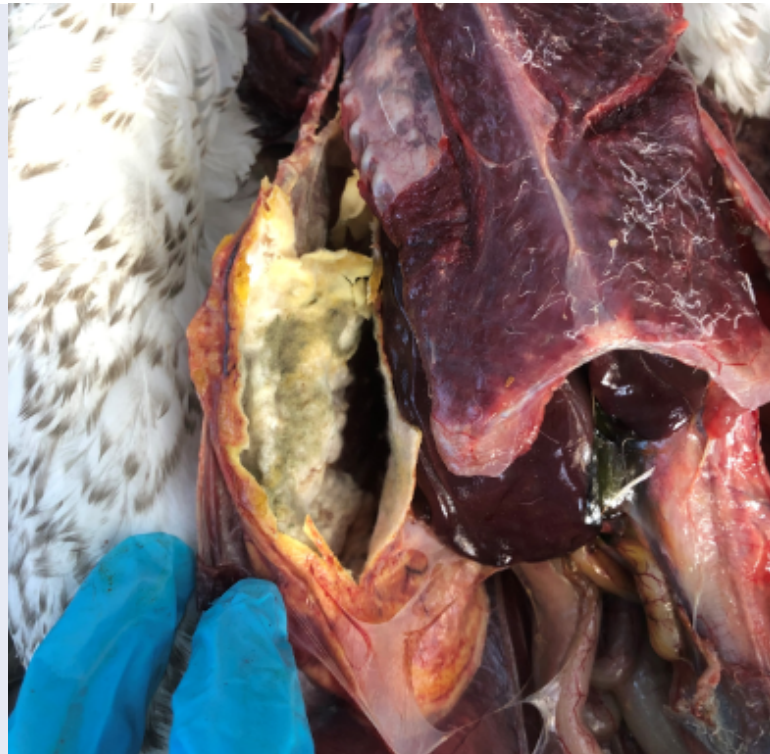
Level 1 Aspergillosis: The patient's overall external appearance will show no signs of infection or fungal growth. However, during necropsy, there may be minimal fungal growth (1-4 small fungal spots) localized to the air sacs or the patient may exhibit minor lung damage. In these cases, aspergillosis should not have played a role in the patient's survival and could be considered a secondary issue.



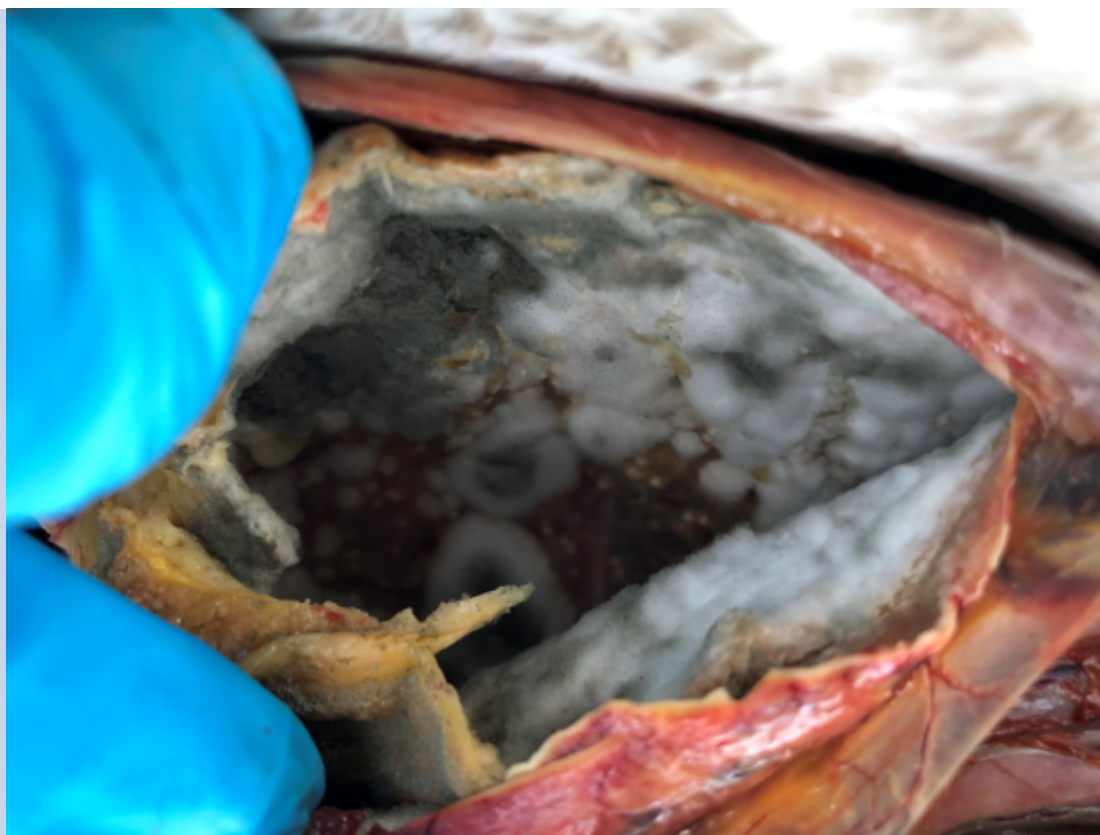
Level 2 Aspergillosis: The patient's external appearance will show no sign of infection or fungal growth. During necropsy, the patient may show signs of limited fungal growth in the air sacs and possibly some thickening or tissue growth in the air sac membranes. The infection would be confined to the air sacs and lungs. In these cases, aspergillosis should not have played a role in the patient's survival and could be considered a secondary issue.



Level 3 Aspergillosis: The patient's external appearance will show no sign of infection or fungal growth. During necropsy, the patient will exhibit fungal growths that engulf the air sacs and lungs while potentially also showing signs of moderate to heavy tissue growth in the air sac membranes. The infection appears to be at a level of severity that could have caused the patient's death.



Level 4 Aspergillosis: The patient's external appearance will show no sign of infection or fungal growth. During necropsy, the patient may exhibit heavy tissue growth in the air sacs and lungs. The fungal infection may also be starting to spread outside of the lungs and air sacs to visually damage other organs in the body cavity. The infection is at a level of severity that could have caused the patient's death.



Level 5 Aspergillosis: The patient's external appearance will show no sign of infection or fungal growth. During necropsy, the patient will exhibit extreme tissue growth that engulfs the air sacs and lungs. Evidence of extensive fungal infection can be seen spreading throughout the body cavity. Some organs may no longer be identifiable. The infection could potentially expand outside of the body cavity. Many necropsies are cut short due at this point due to safety concerns, a clear immediate cause of death, and not being able to identify anything but the fungal infection. The infection appears to be at a level of severity that could have caused the patient's death.

Table S3: Final disposition totals and percentages of all the Northern Gannet *Morus bassanus* admitted to wildlife rehabilitation facilities included in this study. *DOA = Dead on Arrival

| Year | Patient Intake | Released | | | Euthanized | | | Dead | | | DOA | | Transferred | Pending |
|------|----------------|----------|-------|----------------|------------|---------------|------|------|---------------|-------|-----|------|-------------|---------|
| | | N | % | Rate less DOA* | N | Over 24 Hours | % | N | Over 24 Hours | % | N | % | | |
| 1988 | 1 | 1 | 100.0 | 100.0 | 0 | | 0.0 | 0 | | 0.0 | 0 | 0.0 | | 0 |
| 1989 | 3 | 0 | 0.0 | 0.0 | 1 | | 33.3 | 1 | | 33.3 | 0 | 0.0 | | 1 |
| 1991 | 1 | 0 | 0.0 | 0.0 | 0 | | 0.0 | 1 | | 100.0 | 0 | 0.0 | | 0 |
| 1992 | 10 | 0 | 0.0 | 0.0 | 4 | | 40.0 | 4 | | 40.0 | 2 | 20.0 | | 0 |
| 1993 | 40 | 13 | 32.5 | 34.2 | 0 | | 0.0 | 23 | | 57.5 | 2 | 5.0 | | 2 |
| 1994 | 8 | 2 | 25.0 | 25.0 | 0 | | 0.0 | 4 | | 50.0 | 0 | 0.0 | | 2 |
| 1995 | 1 | 0 | 0.0 | 0.0 | 0 | | 0.0 | 1 | | 100.0 | 0 | 0.0 | | 0 |
| 1996 | 5 | 2 | 40.0 | 40.0 | 0 | | 0.0 | 3 | | 60.0 | 0 | 0.0 | | 0 |
| 1997 | 9 | 0 | 0.0 | 0.0 | 3 | | 33.3 | 6 | | 66.7 | 0 | 0.0 | | 0 |
| 1998 | 29 | 4 | 13.8 | 13.8 | 7 | | 24.1 | 10 | | 34.5 | 0 | 0.0 | | 8 |
| 1999 | 22 | 5 | 22.7 | 22.7 | 6 | | 27.3 | 11 | | 50.0 | 0 | 0.0 | | 0 |
| 2000 | 26 | 4 | 15.4 | 15.4 | 4 | | 15.4 | 18 | | 69.2 | 0 | 0.0 | | 0 |
| 2001 | 23 | 9 | 39.1 | 39.1 | 0 | | 0.0 | 14 | | 60.9 | 0 | 0.0 | | 0 |
| 2002 | 42 | 7 | 16.7 | 16.7 | 9 | | 21.4 | 24 | | 57.1 | 0 | 0.0 | | 2 |
| 2003 | 61 | 16 | 26.2 | 26.7 | 11 | | 18.0 | 33 | | 54.1 | 1 | 1.6 | | 0 |
| 2004 | 20 | 3 | 15.0 | 16.7 | 5 | | 25.0 | 10 | | 50.0 | 2 | 10.0 | | 0 |
| 2005 | 46 | 4 | 8.7 | 8.7 | 14 | | 30.4 | 27 | | 58.7 | 0 | 0.0 | | 1 |

| | | | | | | | | | | | | | | |
|-----------|-------|-----|------|------|-------|----|------|-------|-----|------|-----|------|----|-----|
| 2006 | 31 | 1 | 3.2 | 3.6 | 20 | | 64.5 | 7 | | 22.6 | 3 | 9.7 | | 0 |
| 2007 | 110 | 15 | 13.6 | 15.0 | 28 | | 25.5 | 57 | | 51.8 | 10 | 9.1 | | 0 |
| 2008 | 56 | 12 | 21.4 | 26.1 | 12 | | 21.4 | 22 | | 39.3 | 10 | 17.9 | | 0 |
| 2009 | 82 | 17 | 20.7 | 23.6 | 19 | 1 | 24.4 | 10 | 24 | 41.5 | 10 | 12.2 | 1 | 0 |
| 2010 | 317 | 58 | 18.3 | 19.3 | 96 | 20 | 36.6 | 75 | 35 | 34.7 | 16 | 5.0 | 15 | 2 |
| 2011 | 177 | 35 | 19.8 | 20.5 | 48 | 1 | 27.7 | 72 | 6 | 44.1 | 6 | 3.4 | 3 | 6 |
| 2012 | 209 | 36 | 17.2 | 18.4 | 76 | 3 | 37.8 | 72 | 6 | 37.3 | 13 | 6.2 | 1 | 2 |
| 2013 | 333 | 49 | 14.7 | 15.6 | 130 | 3 | 39.9 | 107 | 23 | 39.0 | 19 | 5.7 | 2 | 0 |
| 2014 | 292 | 34 | 11.6 | 12.5 | 96 | 4 | 34.2 | 103 | 31 | 45.9 | 20 | 6.8 | 4 | 0 |
| 2015 | 286 | 46 | 16.1 | 17.4 | 102 | 1 | 36.0 | 90 | 8 | 34.3 | 21 | 7.3 | 0 | 18 |
| 2016 | 384 | 64 | 16.7 | 18.3 | 122 | 0 | 31.8 | 134 | 22 | 40.6 | 35 | 9.1 | 0 | 7 |
| 2017 | 352 | 22 | 6.3 | 6.7 | 149 | 4 | 43.5 | 95 | 17 | 31.8 | 23 | 6.5 | 0 | 42 |
| 2018 | 405 | 38 | 9.4 | 10.3 | 199 | 5 | 50.4 | 95 | 17 | 27.7 | 37 | 9.1 | 0 | 14 |
| 2019 | 275 | 14 | 5.1 | 5.5 | 137 | 1 | 50.2 | 89 | 9 | 35.6 | 21 | 7.6 | 1 | 3 |
| 2020 | 207 | 19 | 9.2 | 9.8 | 92 | 0 | 44.4 | 76 | 4 | 38.6 | 13 | 6. | 3 | 0 |
| 2021 | 358 | 23 | 6.4 | 7.1 | 160 | 4 | 45.8 | 130 | 5 | 37.7 | 35 | 9.8 | 0 | 1 |
| 2022 | 206 | 11 | 5.3 | 5.9 | 98 | 5 | 50.0 | 70 | 4 | 35.9 | 18 | 8.7 | 0 | 0 |
| 2023 | 11 | 0 | 0.0 | 0.0 | 9 | 0 | 81.8 | 1 | 0 | 9.1 | 1 | 9.1 | 0 | 0 |
| 2009-2023 | 3,894 | 466 | 12.0 | 12.9 | 1,533 | 52 | 40.7 | 1,219 | 211 | 36.7 | 288 | 7.4 | 30 | 95 |
| 1988-2023 | 4,438 | 564 | 12.7 | 13.7 | 1,657 | 52 | 38.5 | 1,495 | 211 | 38.4 | 318 | 7.2 | 30 | 111 |

Figure S1: The intake percentage and volume of all adult Gannet rehabilitation patients with a known age, including adults and juveniles. This figure correlates very closely with the overall intake patterns shown in Figure 2. However, the increase in juvenile patients is quite concerning, reaching nearly 75% of all patients with an identified age.

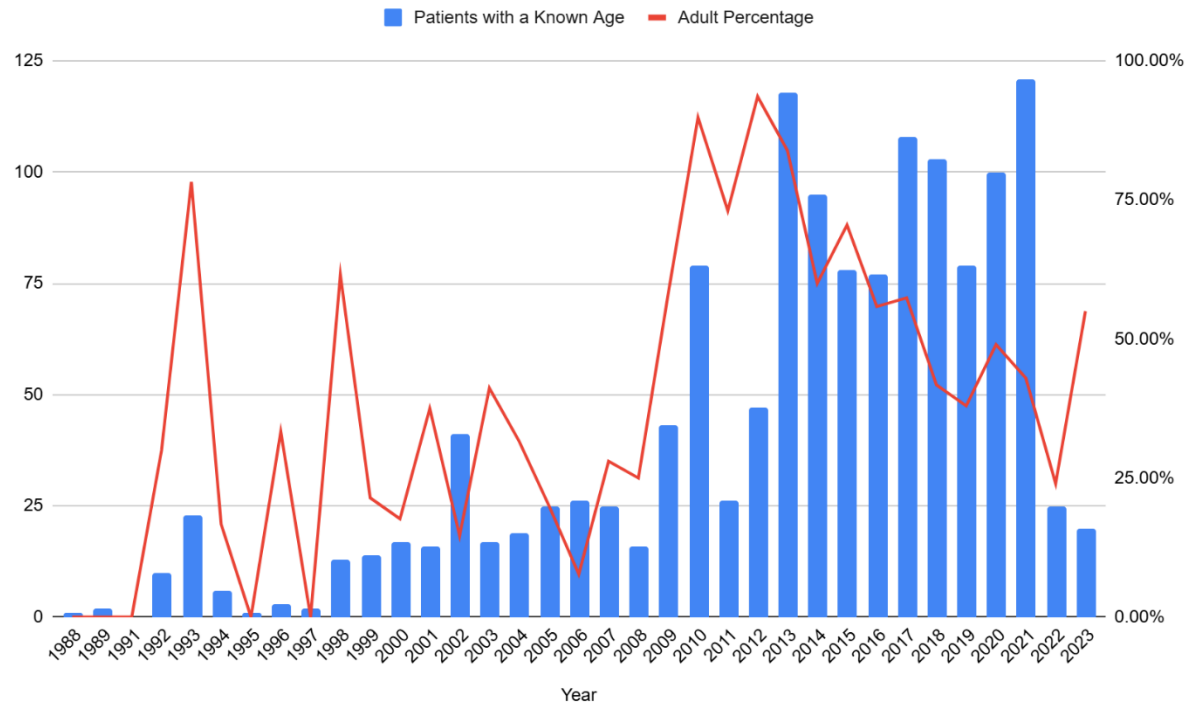


Table S4: The breakdown of why Gannets were admitted to rehabilitation facilities in Florida and along the East Coast and the final dispositions of those patients. *This Release Rate does not include DOA or necropsied patients. **These patients when admitted were DOA, died, or were euthanized prior to necropsy and were not double counted.

| Cause of Injury or Disease | N | % | Released | Release %* | Euthanized | Euthanized in 24 Hours | Dead | Dead in 24 Hours | Necropsy* | DO A | Transferred | Pending |
|-----------------------------------|----------|----------|-----------------|-------------------|-------------------|-------------------------------|-------------|-------------------------|------------------|-------------|--------------------|----------------|
| Exhaustion | 409 | 26.1 | 71 | 17.9 | 55 | 13 | 132 | 77 | | 13 | | 48 |
| Emaciation | 318 | 20.3 | 15 | 4.9 | 103 | 4 | 152 | 31 | 2 | 8 | 2 | 1 |
| Hook and Line | 256 | 16.3 | 60 | 24.4 | 42 | 8 | 105 | 12 | 2 | 8 | 4 | 15 |
| Trauma | 210 | 13.4 | 27 | 13.8 | 63 | 35 | 52 | 8 | 13 | 2 | 3 | 7 |
| Aspergillosis | 95 | 6.1 | | 0 | 5 | 2 | 20 | 2 | 65 | 0 | | 1 |
| Neurological | 91 | 5.8 | 2 | 2.2 | 17 | 58 | 8 | 3 | | 2 | | 1 |
| Suspected Aspergillosis | 27 | 1.7 | | 0 | 3 | 20 | 4 | 0 | | 0 | | |
| Clinically Healthy | 26 | 1.7 | 15 | 60 | 2 | 0 | 5 | 3 | 1 | 0 | | |
| Disease | 23 | 1.5 | | 0 | 1 | 4 | 5 | 0 | | 0 | | 13 |
| Astatic | 14 | 0.9 | | 0 | 0 | 0 | 10 | 2 | | 1 | | 1 |
| Weather | 10 | 0.6 | 1 | 10 | 1 | 0 | 2 | 0 | | 0 | | 6 |
| Animal attack | 9 | 0.6 | | 0 | 4 | 1 | 3 | 0 | | 0 | 1 | |
| Botulism | 8 | 0.5 | | 0 | 0 | 0 | 8 | 0 | | 0 | | |

| | | | | | | | | | | | | |
|------------------------|---|-----|---|------|---|---|---|---|--|---|---|--|
| Eye Issue | 7 | 0.4 | | 0 | 1 | 1 | 4 | 0 | | 0 | 1 | |
| Feather Damage | 7 | 0.4 | 3 | 42.9 | 3 | 0 | 0 | 0 | | 0 | 1 | |
| Respiratory | 7 | 0.4 | 1 | 14.3 | 3 | 0 | 3 | 0 | | 0 | | |
| Collision | 6 | 0.4 | 1 | 16.7 | 0 | 2 | 3 | 0 | | 0 | | |
| Harmful algal blooms | 6 | 0.4 | 1 | 16.7 | 0 | 0 | 5 | 0 | | 0 | | |
| Oiled | 6 | 0.4 | 3 | 50 | 1 | 0 | 1 | 1 | | 0 | | |
| Entangled | 4 | 0.3 | | 0 | 0 | 1 | 1 | 1 | | 1 | | |
| Gunshot | 4 | 0.3 | | 0 | 2 | 1 | 1 | 0 | | 0 | | |
| Hit by car | 4 | 0.3 | | 0 | 0 | 1 | 3 | 0 | | 0 | | |
| Toxin | 4 | 0.3 | | 0 | 0 | 0 | 3 | 0 | | 1 | | |
| Bumblefoot | 3 | 0.2 | | 0 | 1 | 2 | 0 | 0 | | 0 | | |
| Hit by boat | 3 | 0.2 | | 0 | 1 | 1 | 1 | 0 | | 0 | | |
| Genetic | 2 | 0.1 | 1 | 50 | 0 | 0 | 1 | 0 | | 0 | | |
| Human Interference | 2 | 0.1 | 1 | 100 | 0 | 0 | 0 | 0 | | 1 | | |
| Trapped | 2 | 0.1 | 1 | 50 | 0 | 1 | 0 | 0 | | 0 | | |
| Dehydration | 1 | 0.1 | | 0 | 0 | 0 | 1 | 0 | | 0 | | |
| Fish he ate got caught | 1 | 0.1 | | 0 | 0 | 0 | 1 | 0 | | 0 | | |
| Parasites | 1 | 0.1 | | 0 | 0 | 0 | 1 | 0 | | 0 | | |

| | | | | | | | | | | | | |
|--------------------|-------|-------|-----|------|-----|-----|-----|-----|----|----|----|----|
| Shark attack | 1 | 0.1 | | 0 | 1 | 0 | 0 | 0 | | 0 | | |
| Window Strike | 1 | 0.1 | 1 | 100 | 0 | 0 | 0 | 0 | | 0 | | |
| Grand Total | 1,568 | 100.0 | 204 | 14.1 | 309 | 155 | 535 | 140 | 83 | 37 | 12 | 93 |

Table S5: The duration Gannets spent in rehabilitation facilities, separated out into those that had a final disposition after 24 hours, those that had a final disposition in seven days, and the total patient outcomes. DOA patients and patients that spent 100 days or more in care were excluded.

| Patient Outcomes | 0 to 24 Hours | 0 Hours to 7 days | Total Care Outcomes |
|--|----------------------|--------------------------|----------------------------|
| Final Patient Disposition Determined | 653 | 982 | 1,155 |
| Percentage of Final Disposition Patients | 56.5 | 85 | 100 |
| Percentage of Patients Released | 3.8 | 4.5 | 12.6 |

Table S6: The weights of Gannets with a known weight in kilograms, sorted by lowest to highest weights. The table includes a breakdown between adult and juvenile patients as well as those patients release rate. *Total includes patients with and without a known age. **Juvenile includes one Fledgling.

| Weight (kg) | Adult N | Juvenile N | Total* | Released | Release % |
|--------------------|----------------|-------------------|---------------|-----------------|------------------|
| Below 1.5 | 4 | 16 | 32 | 0 | 0.0 |
| 1.50 to 1.7499 | 44 | 116 | 225 | 6 | 2.7 |
| 1.75 to 1.9999 | 104 | 97** | 256 | 32 | 12.5 |
| 2.00 to 2.2499 | 85 | 51 | 158 | 23 | 14.6 |
| 2.25 to 2.4999 | 40 | 6 | 59 | 19 | 32.2 |
| 2.50 to 2.7499 | 23 | 5 | 32 | 13 | 40.6 |
| 2.75 to 2.9999 | 6 | 0 | 8 | 3 | 37.5 |
| Over 3 | 1 | 2 | 4 | 0 | 0.0 |

Figure S2: The packed cell volume (PCV) values for Gannets along with the number of patients released.

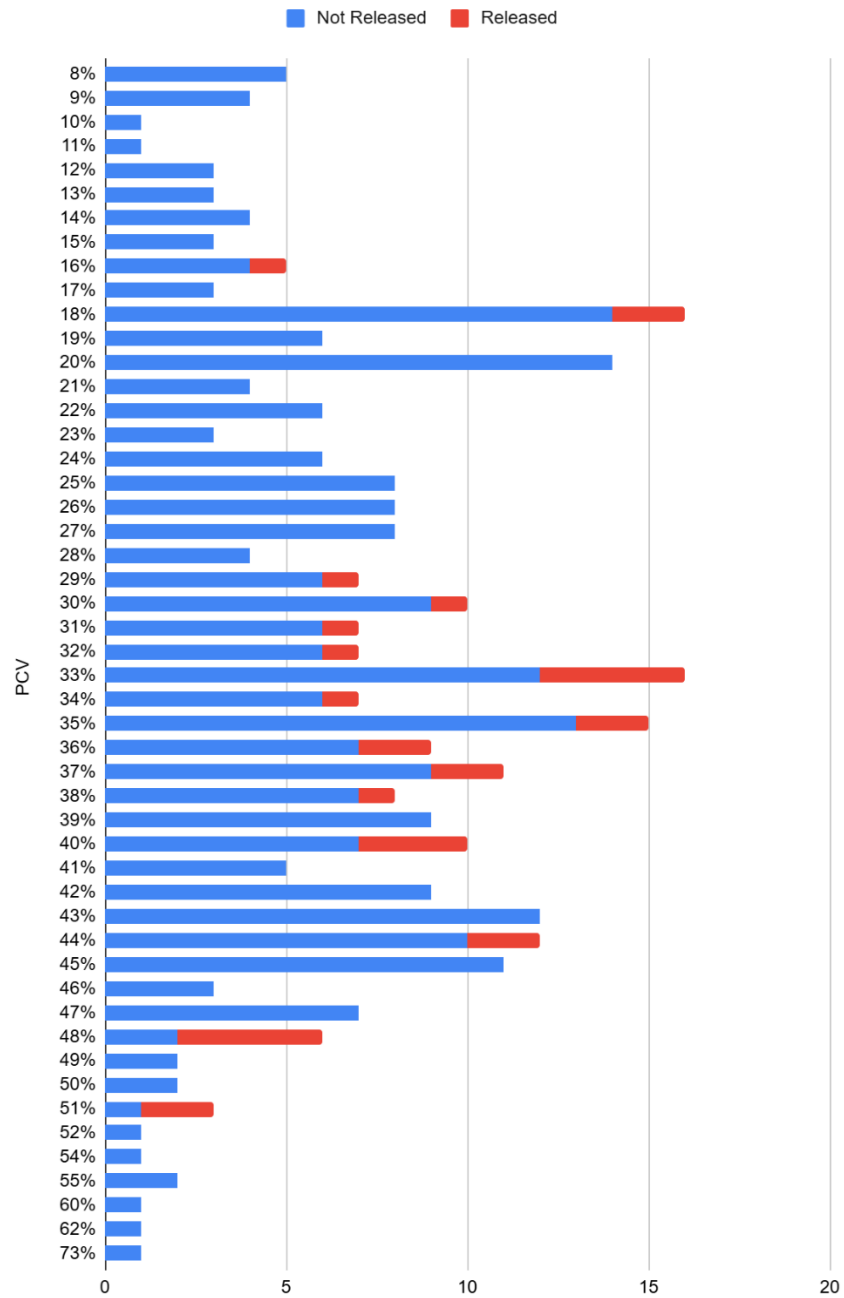


Figure S3: The total solids (TS) values in grams per decaliter for Gannets along with the number of patients released.

