

**PRACTICAL EXAMPLES OF COMPILING AND ANALYZING YOUR ANNUAL REPORT DATA**

By Allan & Shirley Casey

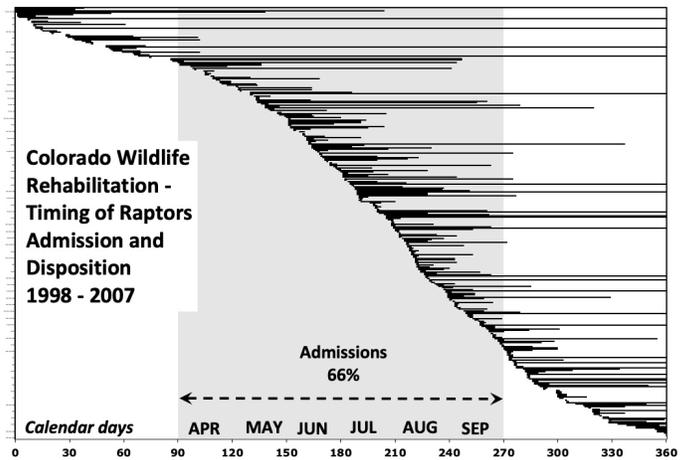
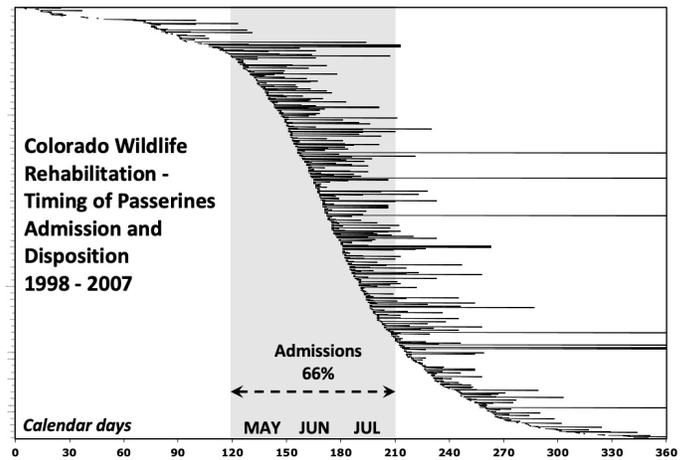
The accompanying article in this issue of “Release” describes ways in which annual rehab report data can be used beyond satisfying the regulatory requirement for permit/license renewal. For example, rehabilitators may review their records to confirm when ‘baby seasons’ started; when the greatest number of animals were in rehab; or changes in overall admissions. Some may compare their own reports over several years to review trends in numbers of species, admissions, releases, etc. Others may try to determine if and how changes in practices or other factors affect their numbers and workload, such as changes in numbers of nearby rehab capacities; seasonal weather events (e.g., severe storms); or greater emphasis on and skill with reneating and reunions. Analyzing all of those and other considerations can be accomplished in reviewing records from a single rehabilitator or a rehab center’s data.

Using the extensive data in rehab records and reports for each animal can be overwhelming and confusing. Another approach is to use 3-4 data points to gain key insights. Here are some examples to show how that approach can help ‘smooth out’ the results even with a large data set.

**Example #1 - Exactly when IS busy season?**

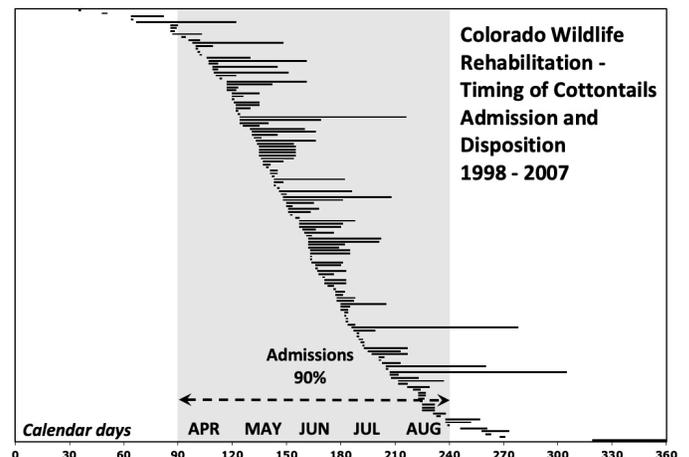
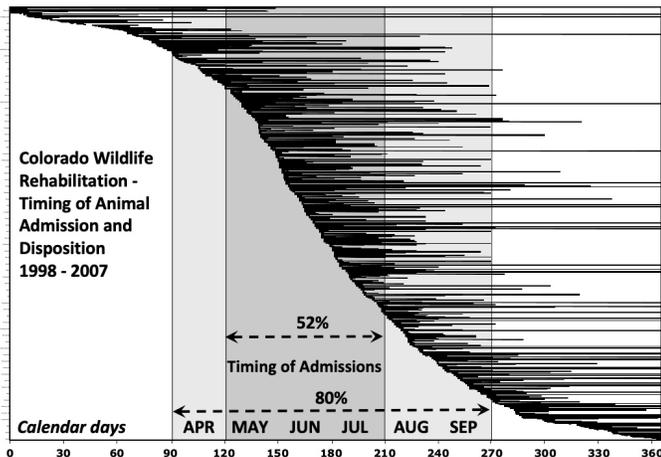
While the quick answer is “always,” certain months are busier. An easily constructed graph visibly highlights the busiest time of the year – either for all animals or for a single species - using just three pieces of data (*species of the individual animal, data admitted, and date of disposition*). In the example below, the data from a study of all combined Colorado wildlife rehabilitation annual reports (116K total animals over 10 years and 100+ rehabilitators per year) clearly indicates that slightly over half of all animal admissions in the state occur in just 3 months and 80% occurs within 6 months. This is not altogether surprising given the high numbers of spring orphans and the fact that juvenile and adult animals arrive year-round due to any number of injuries, displacements or other circumstances.

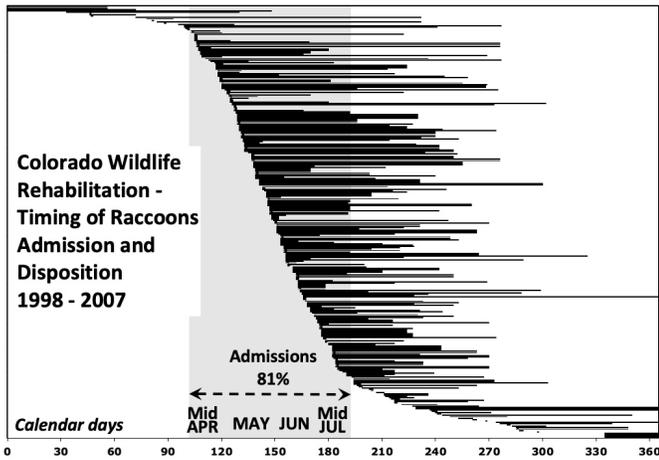
A deeper dive into some of the avian groups produces two charts that show the timing of 66% of admissions for passerines and raptors.



The charts clearly indicate the time compression of the admissions within just 3 months for passerines, where the same percentage of admissions for raptors occurs over twice as long or 6 months.

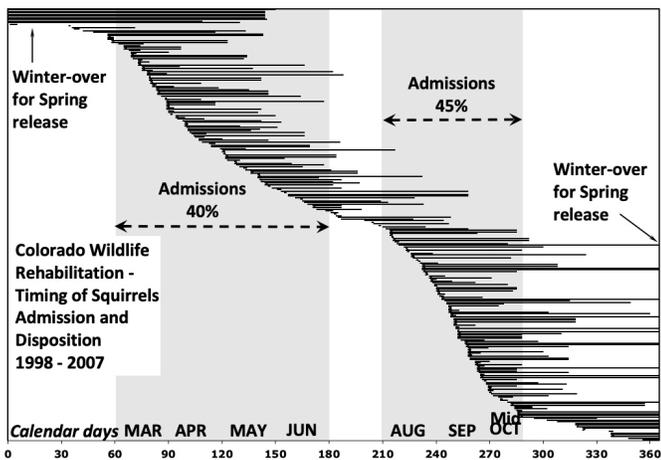
Turning to some of the mammal species/groups, the charts for cottontails and raccoons reflect a very high percentage of annual admissions occur during the spring baby season, with over 80% of raccoon admissions occurring in just 90 days.





The other metric that becomes clear in these two preceding charts is that the rehabilitator is faced with a much longer husbandry period with raccoons (e.g., feeding, caging) than the cottontails, which show a far shorter period in temporary captivity. This has obvious implications for workload, staffing and funding between the two species.

Those familiar with the natural history of tree squirrels will not be surprised with the bimodal timing of squirrel admissions in the next chart. Similar to raccoons, it shows the timing in captivity after admission, including a fair number of animals held over-winter for a spring release.



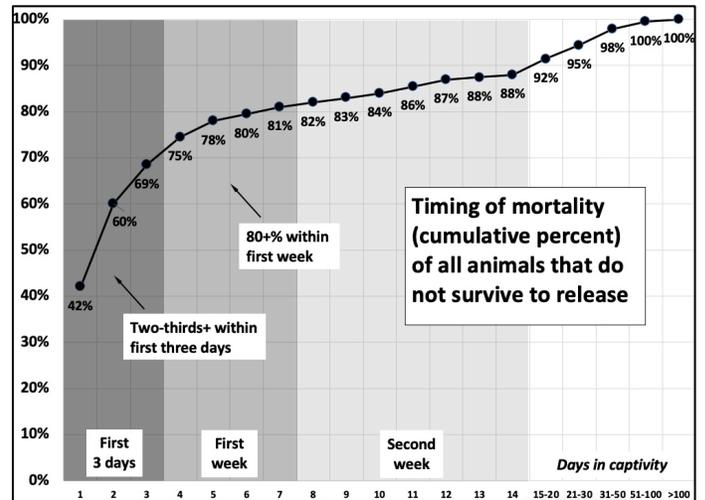
An experienced rehabilitator may find the trends in these charts somewhat obvious. However, these trends can be used to better understand the following - whether using individual or facility operations:

- 1.) The best times of year to perform off-season tasks such as cage maintenance, ordering supplies and training.
- 2.) The optimum times to recruit and train new volunteers or mentor apprentice rehabilitators.
- 3.) Times to provide an overall review of practices and procedures and the impact on survivability rates by species (understanding that urgent problem solving may occur any time).
- 4.) Times for a rehabilitator to 'recharge their battery' with hobbies, vacations, or viewing healthy wildlife on a hike.

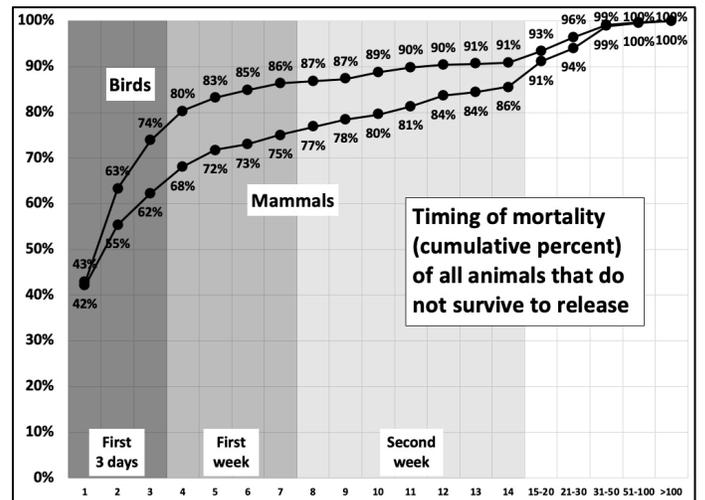
## Example #2 – Are the first few days really that critical?

Anecdotally most would answer “Absolutely!” But which days and to what degree? The following charts were created by using the same three data points described above, but added a fourth metric of survivability – whether or not the animal survived to release (including transfers and non-releasable animals).

The criticality of the first three days is apparent, with over two-thirds of all mortality occurring in that time frame. Over 80% of those mortalities are within the first week, with 90% by the end of the second week.



The next chart segregates the prior chart as to birds and mammals and the timing of their respective mortality.

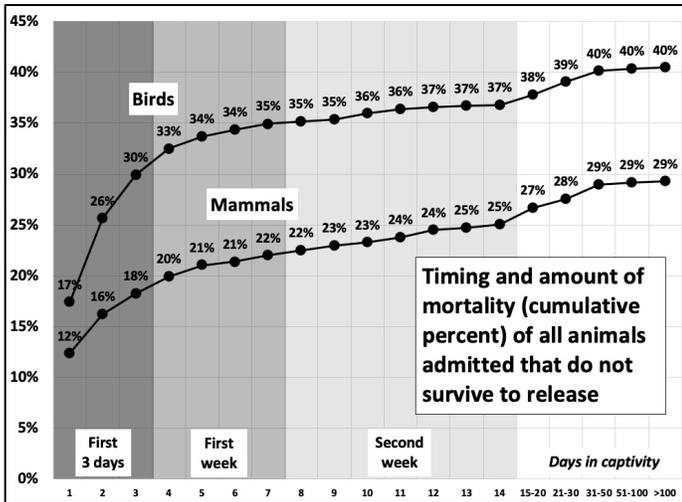


Again, anecdotally, most rehabilitators know that faster mortality is observed in birds than in mammals. This chart, based on a large sample set of data, shows there is a measurable difference in timing, likely based on a number of factors that would benefit from further analysis and study.

The data in the last chart in this example is graphed in a slightly different manner on the next page. It shows survivability rates segregated by birds and mammals, often

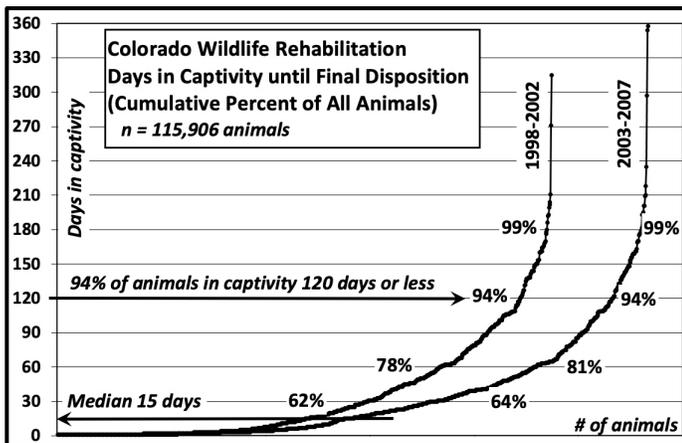
referred to as “release rate.” Analyses of these three charts can prompt questions and provide insights that could lead to improved survivability:

- 1.) What critical care skills are needed in those first three days? Are rehab hotlines and transport networks fast and efficient? Is caseload sufficiently limited to allow urgent care when needed for incoming cases?
- 2.) Is there comparative or benchmark data on survivability to assess an individual rehabilitator or facility performance?
- 3.) Do rehabilitators share and constructively compare records to improve success in their rehab community?



### Example #3 – How long are animals in rehab captivity?

To better understand the general trend or norm, and to address a wildlife agency question on an appropriate maximum holding time for animals to be included in state rehab regulations, the same three data points discussed above were examined for the ten years of Colorado data to help answer this question. The chart below shows the results, which are surprisingly consistent between the two 5-year time periods. This is reassuring in that it confirms that rehab animals are held in captivity *only* as long as necessary, with a median time of just 15 days (heavily influenced by the high mortality in the first 2-3 days). Almost two-thirds held one month or less, and only 1% longer than 180 days.



Many rehabilitators will not be surprised by these trends. Rehabilitators knowledgeable in natural history know that timing of captivity is dependent on several factors, including the animal’s recoverability progress and chances for survival upon release; sufficient development and maturation time indicating readiness of suitable release; seasonal factors affecting release habitat or migration timing that could necessitate wintering over an animal, and more.

Each rehabilitator certainly makes their own decisions as to timing, based on their knowledge, skill and experience. They adhere to the rehab goal of releasing back to the wild as soon as possible with a high chance of survivability. A multi-year review of their own records will show if average holding times are increasing or decreasing, which may prompt closer analysis of reasons for changes over time.

### Conclusion

Obviously, annual rehab reports submitted to wildlife agencies serve a regulatory function. However, that information (whether from an individual, network or rehab center, or rehab community) can be used many other ways, to highlight trends and identify issues. It is up to the rehabilitator to glean the benefits from that information.

*Shirley and Allan Casey have been licensed wildlife rehabilitators since 1986. Co-founders of WildAgain Wildlife Rehabilitation, Inc., they conduct research, publish, and conduct training on a variety of wildlife rehab related topics. See more at [www.ewildagain.org](http://www.ewildagain.org).*

### DIFFERENCES IN ANNUAL REPORT FORMS

Wildlife agencies require that specific forms be completed and submitted, with different levels of detail. Some agencies require info on individual animals (e.g., species, admission date, condition, disposition date and location), as well as sub-totals by species or type of animal (e.g., birds, mammals, herptiles, RVS). Some states solely want overall summary info. Maintaining a contemporaneous and more thorough and customized log of individual animal data and notes will provide a more rich collection of useful information, well beyond over-reliance on a simplified regulatory format.

New York state rehab annual reports require log info on individual animals, summarized data on species admission and disposition, as well considerable info about reasons for admit. <https://www.dec.ny.gov/permits/25027.html>

Colorado’s wildlife agency uses another approach for annual rehabilitation report. The agency provides an Excel spreadsheet formatted on paper or electronic form. It collects info on individual animals and then summarizes totals that can be modified for personal use or analysis. Those wishing to see the example can check the following link in the Annual Report section. <https://cpw.state.co.us/aboutus/Pages/SWL-WildlifeRehab.aspx>