

P.O. Box 697 San Jose, CA 95106 www.mickaboo.org

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BROMETHALIN IS POISONING THE WILD PARROTS OF TELEGRAPH HILL

Bromethalin, a common rat poison, is the agent responsible for a neurological disease that has sickened or killed birds from the iconic flock of naturalized conures (mostly cherry-head conures) that reside primarily in the Telegraph Hill area in north San Francisco. This is according to a recent study led by the University of Georgia Infectious Diseases Laboratory and funded by Mickaboo Companion Bird Rescue.

The study, published in the peer-reviewed journal PLOS ONE, caps a multi-year effort to determine the cause of the disease, which has been observed in parrots from this flock since at least 1999. Mickaboo has been rescuing injured or sick birds from this flock for over 20 years -- a total of 158 birds since 2003, when Mickaboo started keeping accurate records. Many of these were typical injuries - fledglings flying into windows or falling out of nests, birds flying into cars or highrise buildings, predator attacks, etc. In the early 2000's Mickaboo began documenting birds found with severe neurological problems - birds unable to fly, stand, walk, or even hold up their heads; tremors; sometimes seizures. Often they could not feed themselves. A copy of a video taken of a bird that was brought in in 2017 illustrates the terrible symptoms found in many of these birds, and is attached to the end of this document.

For a bird rescue, caring for ANY bird with these kinds of symptoms is traumatic. Mickaboo works with several excellent avian vets, and none of them could find an underlying cause for this condition. Various possibilities were investigated, and none of them proved to be the cause. Dr. Fern Van Sant, an avian veterinarian in San Jose and one of the study's authors, promised Mickaboo that she would pursue finding the cause until she had an answer. Dr. Van Sant contacted Dr. Branson Richie, an internationally recognized researcher in avian diseases at the University of Georgia, and he too became interested in the problem. Over time, Dr. Van Sant and Dr. Richie brought together the research team that completed the study.

The research team eliminated a significant number of viruses and other diseases as possibilities, as well as toxins commonly found in the environment. As described in the published study, they found conditions consistent with the presence of bromethalin, and developed a study and testing approach to identify its presence in birds.

Mickaboo's initial and ongoing role in this investigation resulted from its effort to provide the best possible care for rescued birds. This **always** includes trying to find treatment, preferably a cure, for whatever is wrong. They provide all necessary veterinary care, including specialty care. Mickaboo also authorized and paid for hospital care provided by local veterinarians and for the



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required lab work, both locally and in Georgia. Some of the work was provided at discounted rates or was provided free.

Mickaboo Companion Bird Rescue is a nonprofit, 100% volunteer organization that rescues pet birds throughout Northern California (www.mickaboo.org). Birds are fostered in volunteers' homes, and receive whatever veterinary care is needed to restore them to health Once the birds are healthy, they are adopted to homes who have completed an educational process. That continues to be Mickaboo's role now in rescuing the wild parrots. The birds are taken in when they are found, evaluated by experienced veterinarians to determine if they display symptoms of bromethalin poisoning, and are treated as required based on symptoms and testing. Some birds exposed to bromethalin don't die. This is Octavia, who did not fully recover but



lives a comfortable life with both human and conure companions. Many of the incoming birds with the documented symptoms can be kept comfortable for a limited time, but continue to fail. Those birds are humanely euthanized when it is clear they cannot be stabilized.

According to Mickaboo CEO, Michelle Yesney, "Our philosophy is to provide whatever medical treatment is necessary to support our birds, and we only euthanize a bird when there is no hope of a cure and the bird is experiencing uncontrollable pain. The Telegraph Hill conures fell into a gray area - we couldn't find out what was wrong with them, so we didn't know how to cure them."

Bromethalin is one of the most commonly used rodenticides in the United States. The birds could be finding it (literally) almost anywhere. But it is now tragically clear that the wild parrots of Telegraph Hill are consuming the poison somewhere. This study just exposed the tip of an iceberg. The question of who else is "finding" bromethalin, where they are finding it, and what it is doing to them is still unknown. Most of the wild parrots who die in San Francisco don't die in Mickaboo's care - they die all over the City. If poisoned birds are being eaten by raptors such as hawks or owls, or by cats or other animals, we also don't know what happens to those predators and scavengers.

As stated in the press release announcing publication, the University of Georgia researchers have indicated their desire to pursue a subsequent study to find out where the birds are getting it. "We now need funding from individuals and groups interested in protecting our environment to help us understand if this toxin is accumulating in a space where it could pose a health risk in other free-ranging animals, or, possibly, in companion animals and people," said co-author Branson W. Ritchie, a veterinary research professor and co-director of the Infectious Diseases Laboratory.



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This is a video included in the study that shows one of the conures rescued in 2017. This bird is displaying symptoms frequently found in birds that have ingested bromethalin:

 $\underline{https://journals.plos.org/plosone/article/file?type=supplementary\&id=info:doi/10.1371/journal.pone.0213248.s012$

The complete study is available on PLOS ONE online: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0213248

This press release was prepared for Mickaboo Companion Bird Rescue (<u>www.mickaboo.org</u>) Any questions can be directed to:

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