Description of document:	United States Geological Survey (USGS) Status Report on Oral Vaccine for Rabies in Vampire Bats (2018?)
Requested date:	09-April-2021
Release date:	26-April-2021
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Source of document:	FOIA Request United States Geological Survey FOIA Officer P.O. Box 66783 Albuquerque, NM 87193 Email: foia@usgs.gov FOIAonline

United States Department of the Interior

U.S. GEOLOGICAL SURVEY
12201 Sunrise Valley Drive
Reston, Virginia 20192-0002

In Reply Refer To:
U.S. Geological Survey
Attention: Eric J. Darby
12201 Sunrise Valley Drive
Reston, Virginia 20192-0002

April 26, 2021

Re: U.S. Geological Survey (USGS) Freedom of Information Act (FOIA) Tracking # DOI-USGS-2021-003534 – Response

This letter is in response to your FOIA request dated April 9, 2021, which was assigned tracking number DOI-USGS-2021-003534. You requested the following information:

> A copy of the most recent internal status report on the development of an oral vaccine for rabies in vampire bats, a USGS NWHC project in collaboration with USDA-APHIS.

I have enclosed one Portable Document Format file consisting of two pages, which is being released to you in full.

You were classified as an "other-use" requester. As such, we may charge you for some of our search and duplication costs, but we will not charge you for our review costs; you are also entitled to up to two hours of search time and 100 pages of photocopies (or an equivalent volume) for free. The search time did not exceed your two-hour entitlement; therefore, you are not being charged for the processing of your request.

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Please note that using OGIS services does not affect the timing of filing an appeal with the Department's FOIA & Privacy Act Appeals Officer. Contact information for the Department's FOIA Public Liaison, who you may also seek dispute resolution services from, is available at *https://www.doi.gov/foia/foiacenters.*

This completes the processing of your request. If you have any questions about our response, you may contact Mr. Eric J. Darby by electronic mail at foia@usgs.gov.

Sincerely,

ERIC DARBY Digitally signed by ERIC DARBY Date: 2021.04.26 08:46:24 -04'00'

Eric J. Darby
U.S. Geological Survey
Government Information Specialist

Enclosure
USGS Potential Vaccine for Vampire Bats (2 Pages)

USGS National Wildlife Health Center
Potential vaccine delivery method for vampire bats
Interim Report

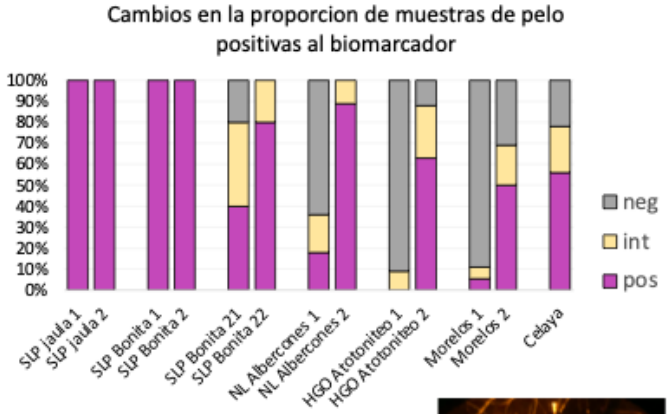
Rabies transmitted by vampire bats to cattle or people is a tremendous economic burden in Central and South American countries. Vampire bats are also moving north and in the next decade are expected to disperse into southern Texas. Currently, managers cull vampire bats to reduce their populations by applying a poison to the skin of captured bats and releasing them for transfer to other bats via mutual grooming, however as a long-term strategy for managing rabies, culling has not been effective, often resulting in the dispersal of bats and further spread of rabies. Alternative methods to more effectively manage vampire bat rabies are desired to reduce risks of rabies virus transmission to humans and domestic animals.

One potential management tool is vaccination of vampire bats against rabies, much like the highly effective oral rabies vaccine program using used to control rabies in terrestrial wild carnivores. An oral rabies vaccine could potentially be applied topically like the vampiricides used for culling, allowing transfer of vaccine among bats. To test the transferability of medium that could be used to stabilize a rabies vaccine, USGS NWHC and collaborators from USDA-APHIS in Mexico conducted a small biomarker transfer trial (without vaccine). Glycerin jelly, mixed with the biomarker rhodamine B, a dye that is microscopically visible in hair within 24 hours of ingestion by animals, was applied topically to wild bats captured in several locations in Mexico. Treated bats were individually identified. Bats were trapped again at 2 week intervals to collect hair samples for biomarker analysis at NWHC to assess uptake by treated bats and transfer to untreated bats. At most locations, biomarker uptake was 60% or higher by the second sampling period, indicating adequate transfer. This data suggests topical application with subsequent transfer among bats within colonies could be an effective approach to vaccinate vampire bats should a safe and effective vaccine be developed in the future.

Resultados de la aplicación de biomarcador en estados de Mexico, 2017

- San Luis Potosi
- Nuevo Leon
- Morelos
- Hidalgo
- Guanajuato

- ~2 semanas entre muestreo
- Marzo-Nov, 2017



Total de muestras: 169
40% hembras
60% machos