Guide for Acoustic Identification of Florida bats

Family:

Vespertilionidae

Database species code

Nychum or Nyhu

See glossary for explanation of codes

Scientific name

Nycticeius humeralis (Rafinesque, 1818)

Taxonomy follows Simmons and Cirranello (2021)

Call shape

To view call graphics click on the camera icon on the right. You can then move through all images by using the left or right arrow keys. A left mouse click returns to the fact sheet.

Typical North American Vespertilionid pulses with FM reversed J broadband pulses of short duration.

See Garner et al., 2003.

Vocal signature parameters

Parameters	N	Min	Max	Mean	St.Dev	10%	25%	75%	90%
Dur	3115	0.1	14.0	5.7	3.67	0.32	1.98	8.71	10.11
TBC	3047	0.3	6574.8	157.1	262.1	7.0	87.5	172.7	268.8
Fmin	3115	23.7	41.5	36.0	2.1	33.5	34.6	37.6	38.7
Fmax	3115	40.0	85.1	49.2	8.7	40.4	41.5	54.4	62.5
BW	3115	0.1	49.3	13.1	9.8	2.2	5.0	19.2	27.7
Fmean	3115	36.0	43.0	39.1	1.6	37.0	38.0	40.2	41.4
Fk	3115	35.1	42.0	38.7	1.7	36.4	37.4	40.2	41.0
FcH1	3115	16.1	20.0	18.6	0.7	17.6	18.0	19.2	19.6
Fc	3115	32.3	40.0	37.2	1.5	35.2	36.0	38.4	39.2
FcH3	3115	48.4	60.0	55.8	2.2	52.9	54.1	57.6	58.8
Sc	3115	-454.3	1458.6	78.6	157.1	3.8	12.6	57.5	249.8
Pmc	3115	0.0	129.5	32.6	25.4	4.5	10.7	48.6	70.3

Reported by Szewczak (2018)

Nychum	Fc	Fmax	Fmin	FmaxE	dur	uppr slp	lwr slp	slp @ Fc	total slp
Mean	37.8	63.0	36.1	40.0	6.6	12.5	2.3	1.2	4.9
Max	40.0	78.0	38.0	43.0	9.4	20.0	3.7	2.5	7.9
Min	36.0	48.0	34.0	37.0	3.8	4.7	0.9	0.0	1.8

Source of acoustic data

Cynthia and George Marks

Reference calls recorded by Marks are being archived at BioAcoustica and will be freely available. See Baker et al., (2015).

Known counties of distribution

- Alachua
- Baker
- Bay
- Bradford
- Brevard
- Broward
- Calhoun
- Charlotte
- Citrus
- Clay
- Collier
- Columbia
- Miami-Dade
- De Soto
- Dixie
- Duval
- Escambia
- Flagler
- Franklin
- Gadsden
- Gilchrist
- Glades
- Gulf
- Hamilton
- Hardee
- Hendry
- Hernando
- Highlands
- Hillsborough
- Holmes
- Indian River
- Jackson
- Jefferson
- Lafayette
- Lake
- Lee
- Leon
- Levy
- Liberty
- Madison
- Manatee
- Marion
- Martin
- Monroe
- Nassau
- Okaloosa
- Okeechobee
- Orange
- Osceola
- Palm Beach
- Pasco
- Pinellas
- Polk
- Putnam
- Santa Rosa
- Sarasota
- Seminole
- St. Johns
- St. Lucie
- Sumter
- Suwannee
- Taylor
- Union
- Volusia
- Wakulla
- Walton
- Washington

Conservation status

Least concern; Ver.3.1 ; Population trend - stable; evaluated 2008. (I.U.C.N. 2017.)

Notes

The subspecies Nycticeius humeralis **subtropicalis** (Schwartz, 1951) described from southern Florida has not been found to differ from the nominate species (Simmons and Cirranello, 2020).

See Watkins (1972) for additional details on this species.

See Baker et. al., (2015) for discussion of BioAcoustica and Baker and Vincent (2019) for a critique of the lack of freely available acoustic data.

Citations

Baker, E., B. W. Price, S. D. Rycroft, J. Hill, and V. S. Smith. 2015. BioAcoustica: a free and open repository and analysis platform for bioacoustics. Database. 2015. bav054

Baker, E., and S. Vincent. 2019. A deafening silence: a lack of data and reproducibility in published bioacoustics research? Biodiversity Data Journal 7: e36783.

Garner, S. M., C. D. Hein, A. C. Miles, and S. S. Castleberry. 2003. Echolocation call parameters of Nycticeius humeralis. Bat Research News. 44**:** 140.

Marks, C. S., and G. E. Marks. 2006. Bats of Florida. Pp. 176. University of Florida Press, Gainesville.

Schwartz, A. 1951. A new race of bat (Nycticeius humeralis) from southern Florida. Journal of Mammalogy. 32:233-234.

Simmons, N. B., and A. L. Cirranello. 2020. Bat Species of the World: A taxonomic and geographic database. http://batnames.org

Szewczak, J. M. 2018. Echolocation Call Characteristics of Eastern U.S. Bats. Echolocation call characteristics of Eastern U.S. Bats. Unpublished report.

The IUCN 2017. Red List of Threatened Species. Version 2017-1.www.iucnredlist.org;. Downloaded on August 6, 2017.

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