

Guide for Acoustic Identification of Florida bats

Family:

Vespertilionidae

Database species code

Eptfus or Epfu

See glossary for explanation of codes

Scientific name

Eptesicus fuscus (Beauvois, 1796)

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 notes for link to discussion of social vocalizations.

Vocal signature parameters

Parameters	N	Min	Max	Mean	St.Dev	10%	25%	75%	90%
Dur	419,329	1.40	19.99	5.27	3.22	1.73	2.44	7.53	9.82
TBC	393,160	1.5	14597.2	355.7	717.9	7.8	120.1	330.5	630.1
Fmin	419,329	23.02	32.00	27.30	1.70	24.84	26.23	28.52	29.30
Fmax	419,329	25.00	69.87	33.67	6.88	27.30	29.20	35.87	43.24
BW	419,329	0.08	45.19	6.37	6.58	1.12	1.84	8.51	15.59
Fmean	419,329	22.84	41.98	29.14	2.34	25.97	27.48	30.60	32.04
Fk	419,329	25.00	32.00	29.46	1.90	26.49	28.07	31.13	31.62
FcH1	419,329	11.51	17.28	13.96	0.84	12.72	13.43	14.57	14.96
Fc	419,329	23.02	34.56	27.92	1.69	25.44	26.85	29.14	29.91
FcH3	419,329	34.53	51.84	41.88	2.53	38.16	40.28	43.71	44.87
Sc	419,329	-422.7	500.2	33.71	24.4	12.5	22.4	43.5	58.1
Pmc	419,329	0.00	168.70	20.50	23.00	2.80	4.80	28.00	53.20

Reported by Szewczak (2018)

Eptfus	Fc	Fmax	Fmin	FmaxE	dur	uppr slp	lwr slp	slp @ Fc	total slp
Mean	27.9	49.4	26.5	30.0	8.2	5.8	1.8	1.5	3.1
Max	30.0	56.0	28.0	32.0	11.0	8.3	2.9	2.9	4.6
Min	26.0	42.0	25.0	28.0	5.3	3.3	0.7	0.1	1.5

Source of acoustic data

Cynthia and George Marks

Chris Corben

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
- 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
- Miami-Dade
- 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 - increasing; evaluated 2016. (I.U.C.N. 2017.)

Notes

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.

Big brown bats possess a rich repertoire of social vocalizations, with 18 distinct syllable types recorded from captive bats (Gadziola et al., 2012)

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.

Gadziola, M. A., J. M. S. Grimsley, P. A. Faure, and J. J. Wenstrup. 2012. Social vocalizations of big brown bats vary with behavioral context. PLoS One. 7: e44550.

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

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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