

Developing a Centralized Digital Archive of Vouchered Animal Communication Signals (VACS)

Presented By:

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Primary Institutions

- Macaulay Library, Cornell Lab of Ornithology
- Cornell University Museum of Vertebrates
- Louisiana State University Museum of Natural Science
- University of Kansas Biodiversity Institute
- Texas Natural Science Center, University of Texas
- California Academy of Sciences

Secondary Institutions

- American Museum of Natural History
- Peabody Museum, Yale University
- Smithsonian Institution National Museum of Natural History
- Zoologisk Museum, Københavns Universitet
- Museu Paraense Emilio Goeldi

TCN: Vouchered Animal Communication Signals

TCN Goals:

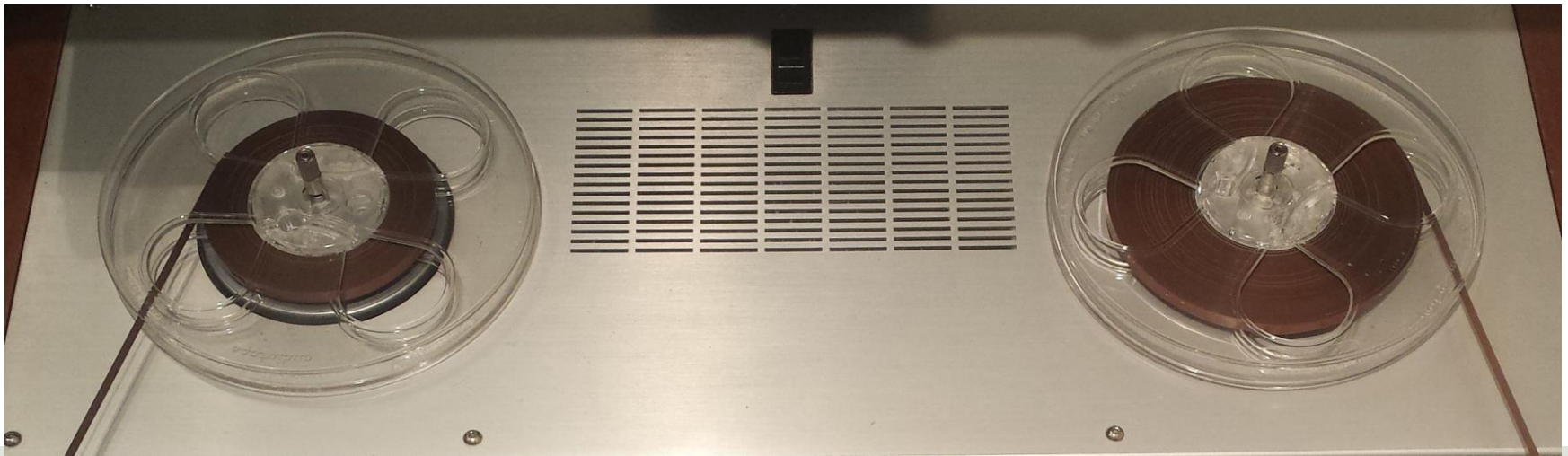
- Digitize and make accessible animal communication signals associated with physical voucher specimens
- Establish direct and transparent links across collections between physical voucher specimens and digitized recordings

TCN Research Theme:

Understanding the tempo and mode of animal signal evolution

Goal #1: Digitize Media & Make Accessible

| Media Format | Hours of Recordings | Hours of Digitized Recordings to Date |
|--------------|---------------------|---------------------------------------|
| Cassette | 495 | 250+ |
| Reel-to-reel | 455 | 15 |
| R-DAT | 95 | 0 |
| TOTAL | 1,045 | 265+ |




Goal #1: Digitize Media & Make Accessible

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ML 190032

00:00 02:35 

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Brownish Twistwing Background Species (9)

Brownish Twistwing -- *Cnipodectes subbrunneus* [BROWSE SPECIES](#) [MORE VIDEO](#) [MORE AUDIO](#)

| Age/Sex | Identification | Solicitation | Behavior | Note |
|--------------|-----------------|---------------|----------|------|
| 1 Adult Male | 100% | Natural | Song | |
| | Sight and Sound | Playback Self | | |

Locations Media and Equipment (1) Notes (1)


Daniel F Lane
20 Jun 1996 at 07:00

Geography
Peru
Loreto

Locality
84.0 km NW of Contamana; NE bank Rio Cushabatay; Cushabatay Camp 1

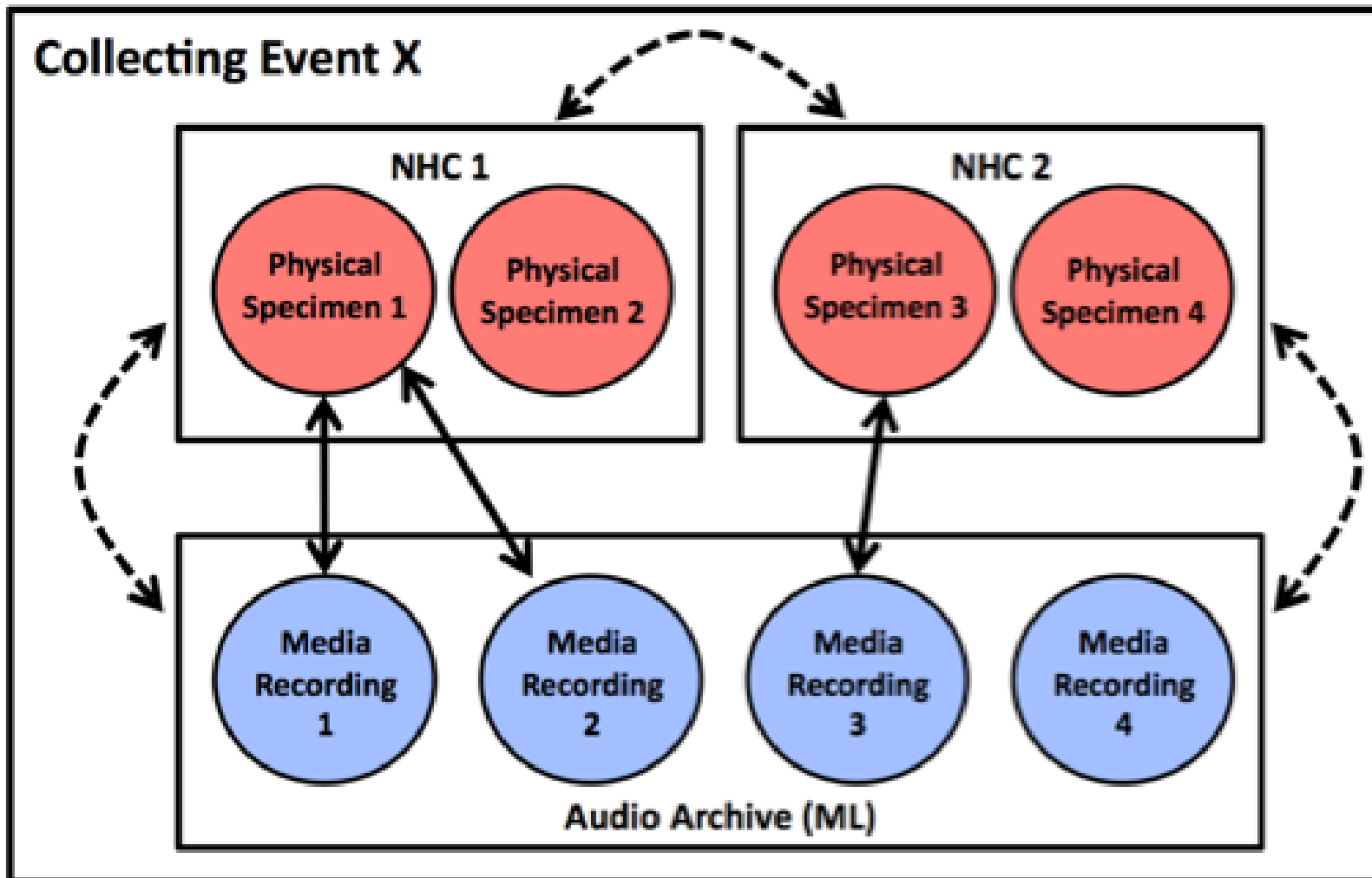
Latitude/Longitude
-7.15 -75.73333

Elevation
200 meters



| Institution | Archived Recordings |
|--------------------------------|---------------------|
| University of Kansas | 10,000+ |
| Louisiana State University | 1,000+ |
| Yale University | 1,000+ |
| California Academy of Sciences | 650+ |
| Total | 12,650+ |

Goal #2: Establish Links Across Collections

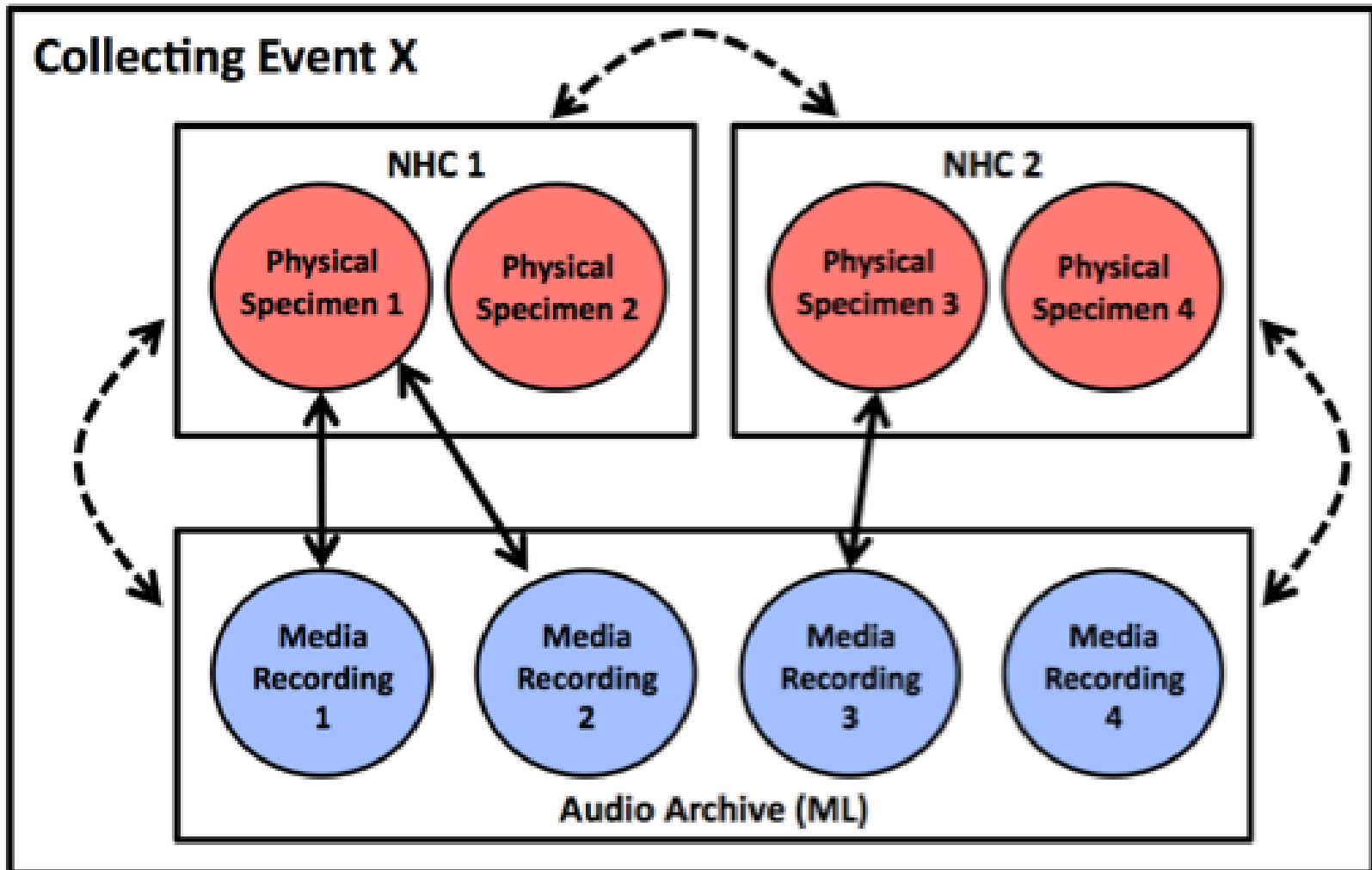


Goal #2: Establish Links Across Collections

TCN One-to-One and Population-level Linkage Goals

| Taxon | Vouchers | Population Vouchers |
|--------------|---------------|---------------------|
| Birds | 5,114 | 55,500+ |
| Anurans | 5,300 | 10s of thousands |
| Fishes | 6,938 | Unknown |
| Insects | 8,968 | 5,704 |
| Other | 28 | Unknown |
| TOTAL | 26,348 | 70,000+ |

Goal #2: Establish Links Across Collections



Goal #2: Establish Links Across Collections

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ML 194211 Search recordings by species:

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Edit ML 194211

[-->.com](#) [Update Search](#) [View Specimen](#) [Copy Asset](#)

Catalog Number: 194211 ISCI: RRN: KU Tape 412

Recordist and Date Save

William E Duellman on 1964 June 11 at hours; Recordist2:

Subjects [New Primary Subject](#) | [New Background Subject](#)

1. Subject : Eleutherodactylus albolabris Save Delete

Taxon:

Primary Subject: Time Code: -

Subtitle: Recordist Distance: 2 feet - meters

Certainty of Species: 100% Captive:

ID Type: Sight Specimen Collected:

Specimen ID/URL:

Age/Sex

Female Male Asexual Hermaphrodite Unknown

Playback

Natural Human Imitation



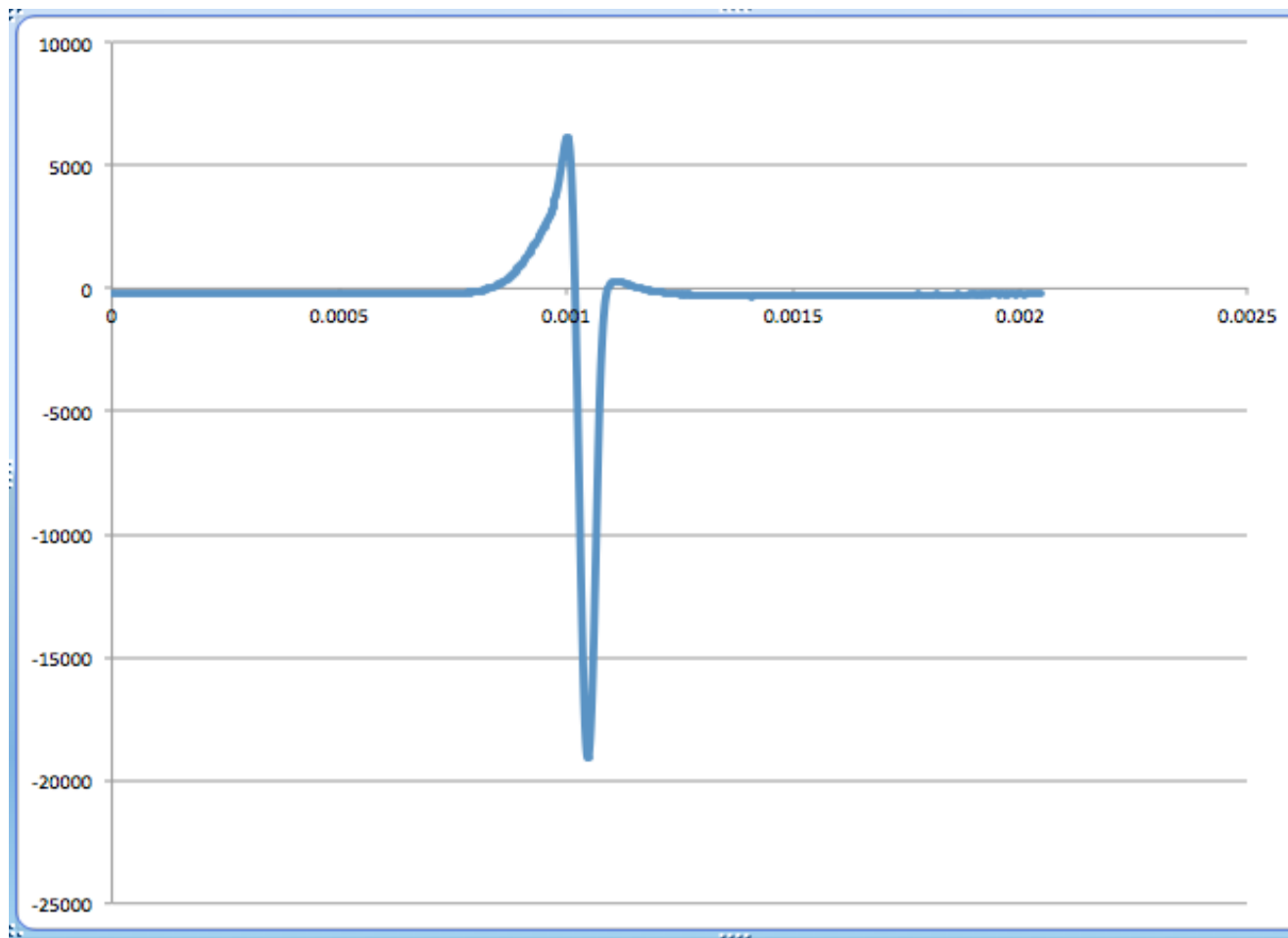
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KU KUH 86891 *Eleutherodactylus dixonii*

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| Term | Value |
|-----------------|---|
| InstitutionID | http://grbio.org/cool/iakn-125z |
| InstitutionCode | KU |
| CollectionCode | KUH |
| DatasetName | University of Kansas Biodiversity Institute Herpetology Collection |
| BasisOfRecord | PreservedSpecimen |
| OccurrenceID | b7a3f2c3-b069-11e3-8cfe-90b11c41863e |
| CatalogNumber | 86891 |
| Preparations | ETOH - 1 |
| EventDate | 1964-6-11 |

Electric Organ Discharges (EODs)



| Time (s) | Voltage |
|-------------|---------|
| 0 | -233 |
| 2.00196E-06 | -217 |
| 4.00391E-06 | -233 |
| 6.00587E-06 | -233 |
| 8.00782E-06 | -217 |
| 1.00098E-05 | -217 |
| 1.20117E-05 | -217 |
| 1.40137E-05 | -217 |
| 1.60156E-05 | -217 |
| 1.80176E-05 | -233 |
| 2.00196E-05 | -233 |
| 2.20215E-05 | -233 |
| 2.40235E-05 | -217 |
| 2.60254E-05 | -217 |
| 2.80274E-05 | -201 |
| 3.00293E-05 | -217 |
| 3.20313E-05 | -217 |
| 3.40332E-05 | -201 |
| 3.60352E-05 | -217 |
| 3.80371E-05 | -233 |
| 4.00391E-05 | -217 |
| 4.20411E-05 | -233 |
| 4.4043E-05 | -217 |
| 4.6045E-05 | -201 |
| 4.80469E-05 | -217 |

Next Steps

- Continue with digitization and archival work at ML
- Finalize an one-to-one linkage process, using KU specimens as a model
- Explore best methods for creating population-level links across databases