

Carolina Madtom - Identified Stream Reaches for Programmatic Agreement, October 2021 - NC Department of Transportation

Geodatabase Feature Class



Tags Carolina Madtom, *Noturus furiosus*, catfish, Neuse River, Tar River, Endangered Species Act, threatened, Division 2/4/5/7, mitigation payment, programmatic, bridges/culverts replacement, repair and rehabilitation, aquatic, USFWS identified stream reach, USFWS, Neuse River Basin, Tar River Basin, Biota, Boundaries, Transportation, NCDOT, Environment, Location, North Carolina, ATLAS

Summary

This dataset was made available as part of the Project ATLAS initiative at NCDOT to support the Environmental Analysis Unit (EAU) Mitigation and Modeling Unit with project delivery in the development phase. Data is current as of September 2019.

This dataset contains USFWS identified stream reaches for the Carolina Madtom. This dataset was created by USFWS to highlight areas of known or potential species occurrence that could trigger consultation under the ESA, as part of a programmatic bridge/culvert programmatic agreement between USFWS and NCDOT/FHWA/USACE.

Please read the programmatic conference opinion for applicability of bridge replacement, repair and rehabilitation projects and reference Appendix B1 for Section 7 Programmatic Process .

https://connect.ncdot.gov/resources/Environmental/EAU/BSG/Documents/Neuse%20River%20Waterdog%20&%20Carolina%20Madtom%20Programmatic/20200506_Final_PCO_CMT_NRWD.pdf

Description

The Carolina Madtom Identified Stream Reaches dataset is a polyline layer depicting streams with historical / known / potential in the Neuse and Tar River basins for Carolina madtom.

The Carolina Madtom is a small catfish, reaching a maximum length of nearly five inches. When compared to other madtoms, the Carolina madtom has a short, chunky body and a distinct color pattern. Three dark saddles along its back connect a wide, black stripe along its side extending from its snout to the base of its tail. The adipose fin has a dark blotch that does not quite reach the fin's edge, giving the impression of a fourth saddle. Yellowish to tan blotches space the saddles, while the rest of the fish is tan. The belly is un-speckled, and the tail has crescent-shaped brown bands near its edge and center. Its pectoral spines have well-defined serrated (saw-like) projections along both margins. Stinging spines in its pectoral fins, earn this fish the "furiosus" title that is part of its scientific name.

The dataset is linear stream features depicting historical/known/potential habitat for listed/proposed species, as of 2019. Use of these datasets is solely for the use as part of the decision process for the Programmatic bridge/culvert agreement between USFWS and NCDOT/FHWA/USACE. These datasets are intended to be updated annually and provided to NCDOT personnel for use in the decision process for the Programmatic bridge/culvert agreement between USFWS and NCDOT/FHWA/USACE.

These datasets were created for the sole purpose of informing the decision process for the Programmatic bridge/culvert agreement between USFWS and NCDOT/FHWA/USACE. These data sets do not replace Heritage element occurrence data, NCWRC PAWS data, nor other USFWS publicly available species occurrence or habitat data.

Credits

The USFWS Raleigh Ecological Service's Aquatic Biologist was tasked to create this dataset as part of the Programmatic bridge/culvert agreement between USFWS and NCDOT/FHWA/USACE.

Annual maintenance of this dataset is handled by the USFWS Raleigh Ecological Service who sends datasets to the Biological Surveys Group within NCDOT.

Support and maintenance of the enterprise spatial database where this data resides is handled by NCDIT's Transportation GIS Unit.

Use limitations

The North Carolina Department of Transportation shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary sources from which this data was compiled must be consulted for verification of information contained in this data.

Datasets developed under Project ATLAS do not replace any field work for future projects and may not be used as a replacement for site visits / field surveys by qualified licensed professionals and hence should be used only as a supporting platform for decision making. Use of this dataset for project scoping or screening is merely pre-decisional.

Extent

West -79.055422

East -77.076242

North 36.270886

South 35.000758

Scale Range

Maximum (zoomed in) 1:5,000

Minimum (zoomed out) 1:625,000

Topics and Keywords

Themes or categories of the resource Boundaries, Biota, Location, Transportation, Environment

Content type Downloadable Data

Export to FGDC CSDGM XML format as Resource Description No

Theme keywords Carolina madtom, Noturus furiosus, catfish, Neuse River, Tar River, Endangered Species Act, threatened, amphibian, aquatic, USFWS identified stream reach, USFWS, Neuse River Basin, Tar River Basin, Biota, Boundaries, Transportation, NCDOT, Environment, Location, North Carolina, ATLAS

Thesaurus

Title User

Creation date 2019-09-27 00:00:00

Publication date 2021-10-15 00:00:00

Place keywords North Carolina

Thesaurus

Title User

Creation date 2019-09-27 00:00:00

Publication date 2021-10-15 00:00:00

Citation

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Creation date 2019-09-27 00:00:00

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Presentation formats digital map

FGDC geospatial presentation format vector digital data

Citation Contacts

Responsible party - point of contact

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit

Contact's position Environmental Program Consultant

Contact information

Phone

Voice 919-707-6136

Address

Delivery point 4101 Capital Boulevard

City Raleigh

Administrative area NC

Postal code 27604

Country US

e-mail address ATLAS@ncdot.gov

Hours of service

9:00am – 5:00pm Monday - Friday

Contact instructions

Please send an email with any issues, questions or comments regarding the ATLAS Data Search Tool, ATLAS Screening Tool or ATLAS Workbench. If it is an immediate need, please call the contact number or indicate as such in the subject line in an email.

Responsible party - resource provider

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit

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Responsible party - originator

Organization's name USFWS Raleigh Ecological Service

Contact's position Aquatic Biologist

Contact information

Phone

Voice 919-856-4520

Address

Type

Delivery point 551-F Pylon Dr

City Raleigh

Administrative area NC

Postal code 27606

Country US

e-mail address sarah_mcrae@fws.gov

Hours of service

9:00am – 5:00pm Monday - Friday

Contact instructions

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Resource Details

Dataset languages English (UNITED STATES)

Dataset character set utf8 - 8 bit UCS Transfer Format

Status completed

Spatial representation type vector

Processing environment Version 6.2 (Build 9200) ; Esri ArcGIS 10.5.1.7333

Credits

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Extents

Extent

Description

Data collection is complete.

Geographic extent

Bounding rectangle

West longitude -84.422111

East longitude -75.416034

South latitude 33.730557

North latitude 36.617257

Extent contains the resource Yes

Temporal extent

Beginning date 2019-09-27 00:00:00

Ending date 2019-09-27 00:00:00

Extent

Geographic extent

Bounding rectangle

Extent type Extent used for searching

West longitude -79.055422

East longitude -77.076242

North latitude 36.270886

South latitude 35.000758

Extent contains the resource Yes

Extent in the item's coordinate system

westBL 1983661.345429

eastBL 2567206.769543

southBL 460616.541558

northBL 917512.724221

exTypeCode Yes

Resource Points of Contact

Point of contact - point of contact

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit

Contact's position Environmental Program Consultant

Contact information

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Voice 919-707-6136

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Resource Maintenance

Resource maintenance

Update frequency annually

Scope of the updates dataset

Other maintenance requirements

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Maintenance contact - point of contact

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit

Contact's position Environmental Program Consultant

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Resource Constraints

Legal constraints

Limitations of use

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Security constraints

Classification unclassified

Classification system None

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Spatial Reference

ArcGIS coordinate system

Type Projected

Geographic coordinate reference GCS_North_American_1983

Projection NAD_1983_StatePlane_North_Carolina_FIPS_3200_Feet

Coordinate reference details

ProjectedCoordinateSystem

WKID 102719

XOrigin -121841900

YOrigin -93659000

XYScale 3048.0060960121918

ZOrigin -100000

ZScale 10000
MOrigin -100000
MScale 10000
XYTolerance 0.0032808333333333331
ZTolerance 0.001
MTolerance 0.001
HighPrecision true
LatestWKID 2264
WKT
PROJCS["NAD_1983_StatePlane_North_Carolina_FIPS_3200_Feet",GEOGCS["GCS_North_American_1983",DATUM["79.0"],PARAMETER["Standard_Parallel_1",34.33333333333334],PARAMETER["Standard_Parallel_2",36.16666666666667],

Reference system identifier

Value 2264
Codespace EPSG
Version 6.12(9.0.0)

Spatial Data Properties

Vector

Level of topology for this dataset geometry only
Geometric objects
Feature class name CarolinaMadtom
Object type composite
Object count 994

ArcGIS Feature Class Properties

Feature class name CarolinaMadtom
Feature type Simple
Geometry type Polyline
Has topology FALSE
Feature count 994
Spatial index TRUE
Linear referencing FALSE

Data Quality

Scope of quality information

Resource level dataset

Data quality report - Completeness omission

Data quality measure reference

Measure description

After processing, the dataset is checked for drawing display and number of records and file sizes compared

with source materials.

Conformance test results

Test passed Yes

Result explanation

Pass

Product specification

Title NCDOT Geospatial Data Specifications

Creation date 2019-09-27 00:00:00

Publication date 2021-10-15 00:00:00

Data quality report - Conceptual consistency

Data quality measure reference

Measure description

The dataset is converted to file geodatabase (FGDB) format using tools in ArcGIS. The geometry is checked, and if needed repaired.

Conformance test results

Test passed Yes

Result explanation

Pass

Product specification

Title NCDOT Geospatial Data Specifications

Creation date 2019-09-27 00:00:00

Publication date 2021-10-15 00:00:00

Data quality report - Quantitative attribute accuracy

Data quality measure reference

Measure description

Geometry checks were conducted using ESRI's Data Reviewer tool.

Conformance test results

Test passed Yes

Result explanation

Pass

Product specification

Title NCDOT Geospatial Data Specifications

Creation date 2019-09-27 00:00:00

Publication date 2021-10-15 00:00:00

Lineage

Lineage statement

Base data layers: -major_hydro-1m (GCS_North American_1983) -hydro24k_arc (GCS_North American_1983) - HUC10 watersheds major_hydro-1m (GCS_North American_1983) -- http://data-ncdenr.opendata.arcgis.com/datasets/2a5324f732bb44d9a1ca29f1c17370ee_0 hydro24k_arc (GCS_North American_1983) -- https://gis11.services.ncdot.gov/arcgis/rest/services/NCDOTApp_ESM/NCDOT_24kHydro/MapServer HUC10 watersheds -- <http://data-ncdenr.opendata.arcgis.com/datasets/dwr-10-digit-huc-watersheds> Species data layer was created by initially selecting stream segments (hydrology) that overlapped NC Natural Heritage Element Occurrence (EO) polygons for each species, then connecting stream segments between EOs, and extending stream segments to headwaters. HUC10 watersheds were then selected based on whether they contained species stream segments.

Process step

Description

Geodatabase was forwarded on to the GIS Unit for publishing as part of data for project ATLAS.

Process contact - point of contact

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit

Contact's position Environmental Program Consultant

Contact information

Phone

Voice 919-707-6136

Address

Type

Delivery point 4101 Capital Boulevard

City Raleigh

Administrative area NC

Postal code 27604

Country US

e-mail address ATLAS@ncdot.gov

Hours of service

9:00am – 5:00pm Monday - Friday

Contact instructions

Please send an email with any issues, questions or comments regarding the ATLAS Data Search Tool, ATLAS Screening Tool or ATLAS Workbench. If it is an immediate need, please call the contact number or indicate as such in the subject line in an email.

Process step

Description

Linear data was reviewed in ESRI's Data Reviewer tool to verify geometry.

Process contact - point of contact

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling

Unit

Contact's position Environmental Program Consultant

Contact information

Phone

Voice 919-707-6136

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Process step

Description

Data was downloaded as a shapefile. Features for NC were exported out and converted to a geodatabase.

Process contact - point of contact

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling
Unit

Contact's position Environmental Program Consultant

Contact information

Phone

Voice 919-707-6136

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Distribution

Distributor

Contact information - distributor

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit

Contact's position Environmental Program Consultant

Contact information

Phone

Voice 919-707-6136

Address

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Distribution format

Name File Geodatabase Feature Class

Version 10.5

Fields

Details for object CarolinaMadtom

Type Feature Class

Row count 994

Definition

Areas of known occurrence for the Carolina Madtom

Definition source

NCDOT

Field OBJECTID

Alias OBJECTID

Data type OID

Width 4

Precision 0

Scale 0

Field description

Internal feature number.

Description source

Esri

Description of values

Sequential unique whole numbers that are automatically generated.

Field Shape

Alias Shape

Data type Geometry

Width 0

Precision 0

Scale 0

Field description

Feature geometry.

Description source

ESRI

Description of values

Coordinates defining the features.

Field StreamName

Alias StreamName

Data type String

Width 100

Precision 0

Scale 0

Field description

Name of Stream where Carolina Madtom is found

Description source

NCDOT

Field Shape_Length

Alias Shape_Length

Data type Double

Width 8

Precision 0

Scale 0

Field description

Length of feature in internal units.

Description source

Esri

Description of values

Positive real numbers that are automatically generated.

Metadata Details

Metadata language English (UNITED STATES)

Metadata character set utf8 - 8 bit UCS Transfer Format

Scope of the data described by the metadata dataset

Scope name dataset

Last update 2021-11-18

ArcGIS metadata properties

Metadata format ArcGIS 1.0

Standard or profile used to edit metadata ISO19139

Metadata style ISO 19139 Metadata Implementation Specification

Created in ArcGIS for the item 2026-08-26 13:52:30

Last modified in ArcGIS for the item 2021-11-18 13:30:19

Automatic updates

Have been performed Yes

Last update 2021-11-18 13:30:19

Metadata Contacts

Metadata contact - point of contact

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit

Contact's position Environmental Program Consultant

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Metadata Maintenance

Maintenance

Update frequency annually

Other maintenance requirements

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Metadata Constraints

Security constraints

Classification unclassified

Classification system None

Limitations of use

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Thumbnail and Enclosures

Thumbnail

Thumbnail type

Image file