

Digital Bonebeds

Turning Field Maps into a Searchable Digital Platform

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...a What?

- Bonebed
- Bonebed Map



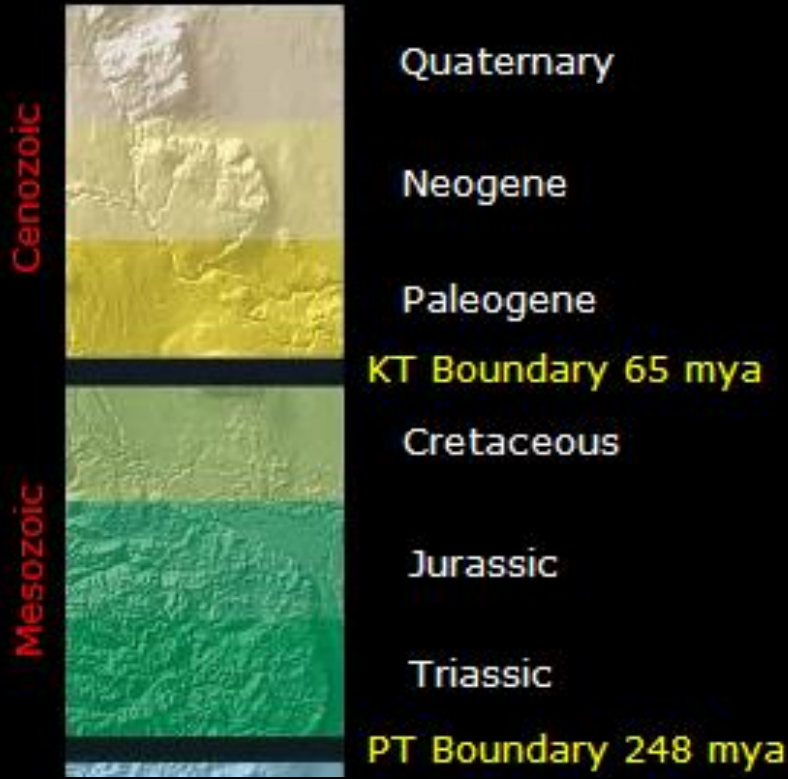
EDMONTON

North
Saskatchewan
River

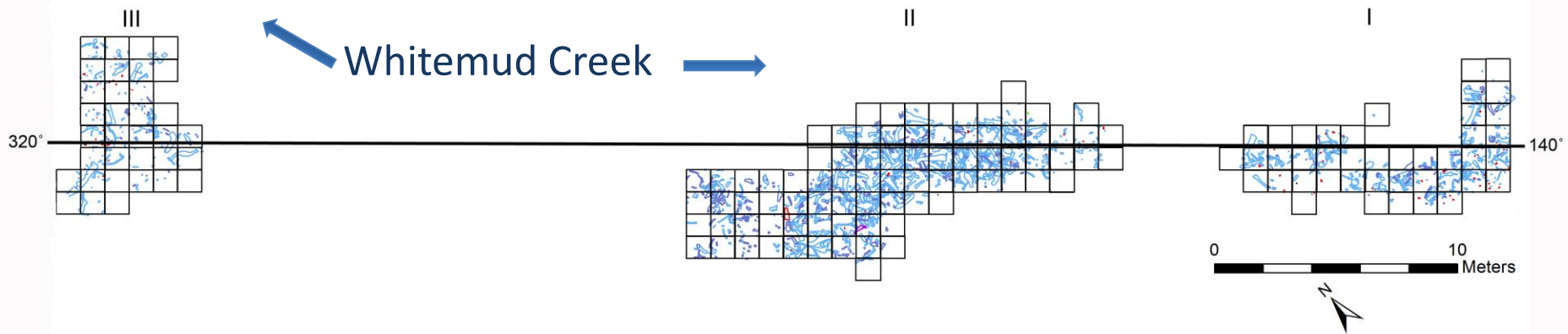
• DANEK
BONEBED



GEOLOGIC TIME SCALE



From Wikimedia Commons



Field School



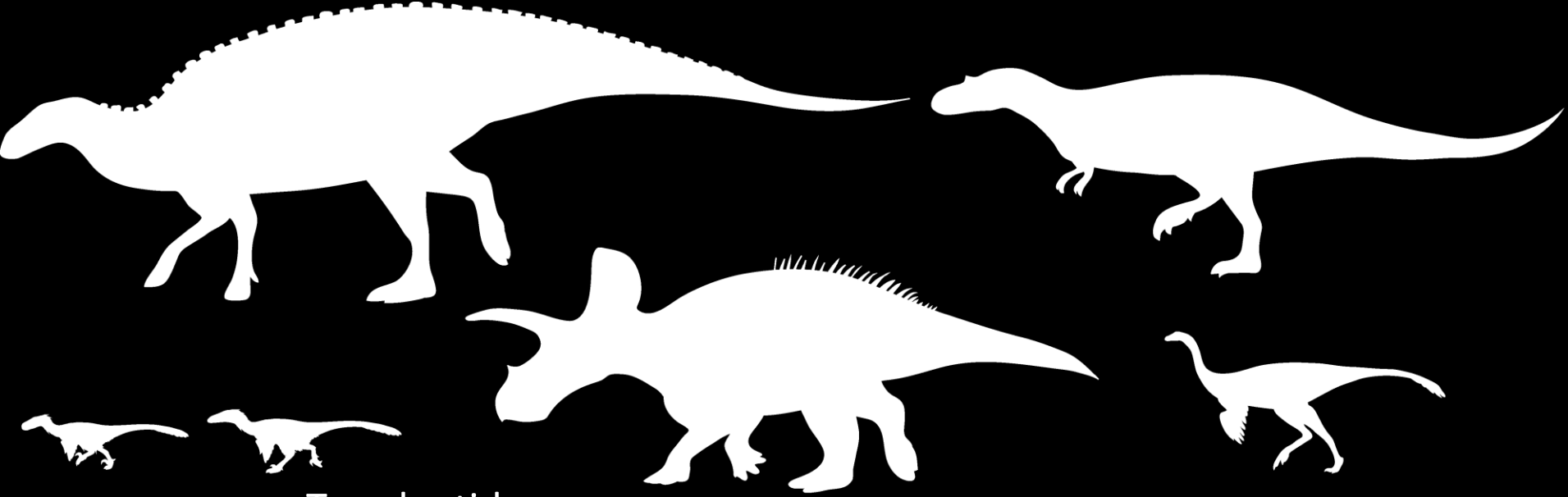
Images courtesy of P. Currie

Edmontosaurus

87%

Albertosaurus

12%



Troodontidae

Ceratopsidae

Ornithomimidae

Saurornitholestes

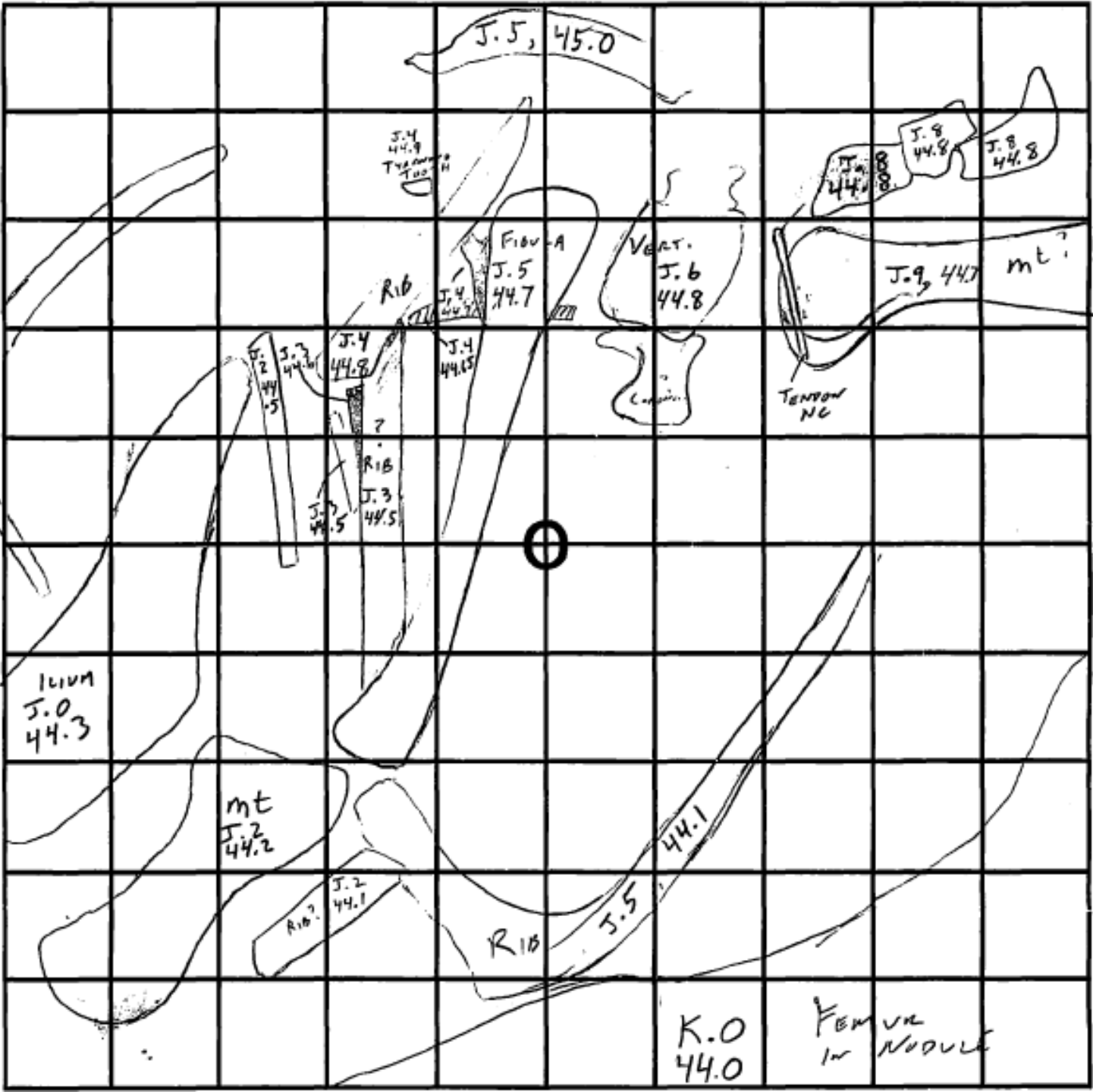
Digitizing Bonebed Maps

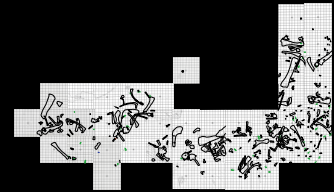
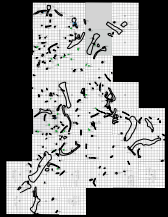


Image courtesy of P. Currie



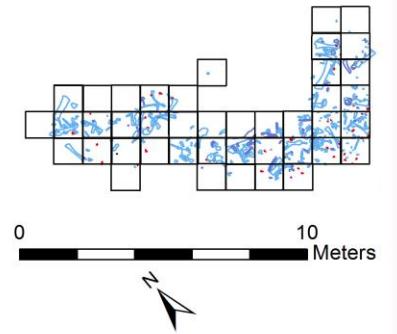
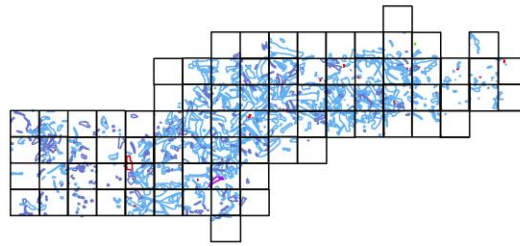
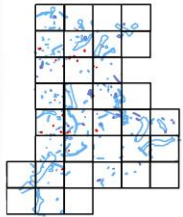
Image courtesy of P. Currie

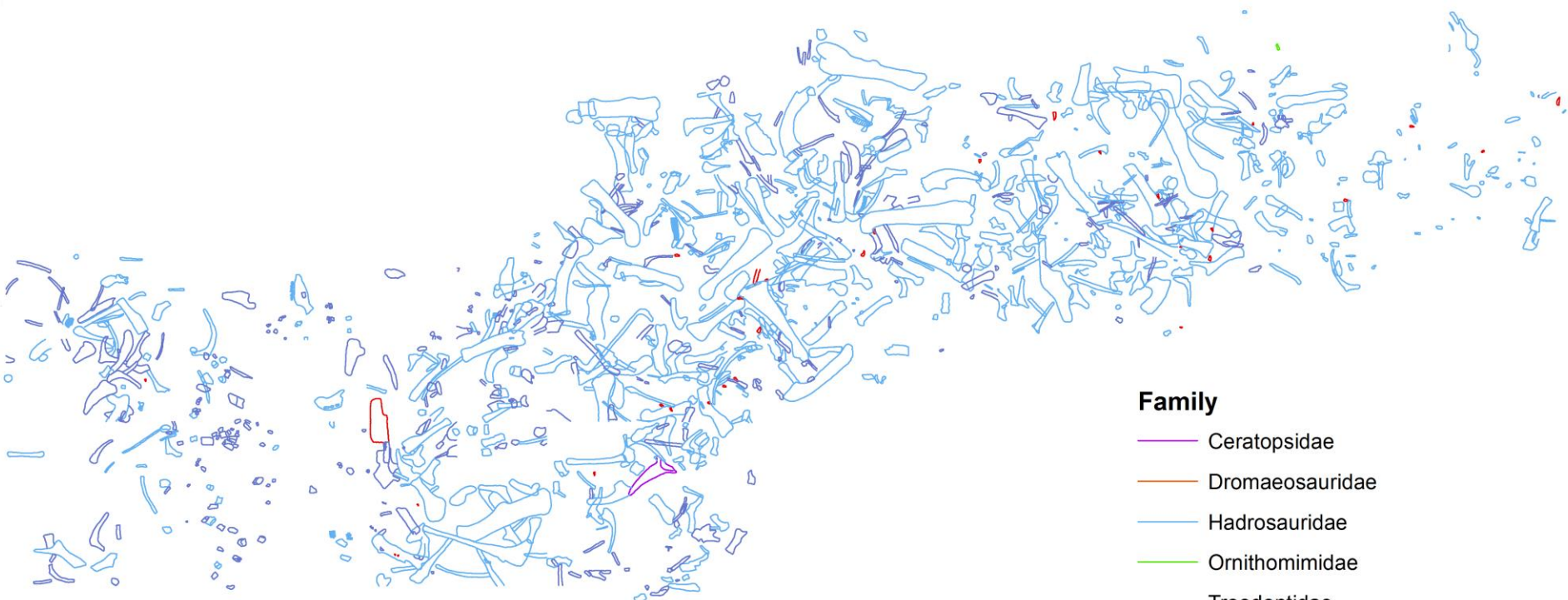




ArcGIS

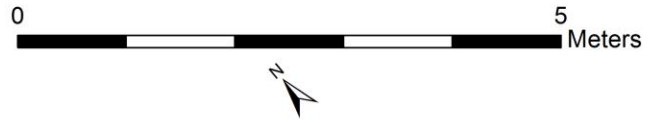
- Ai to DWG
- XLS to CSV
- Master List
 - Catalogue Number
 - Identification
 - Family
 - Quarry Coordinate
 - Unique Identifier



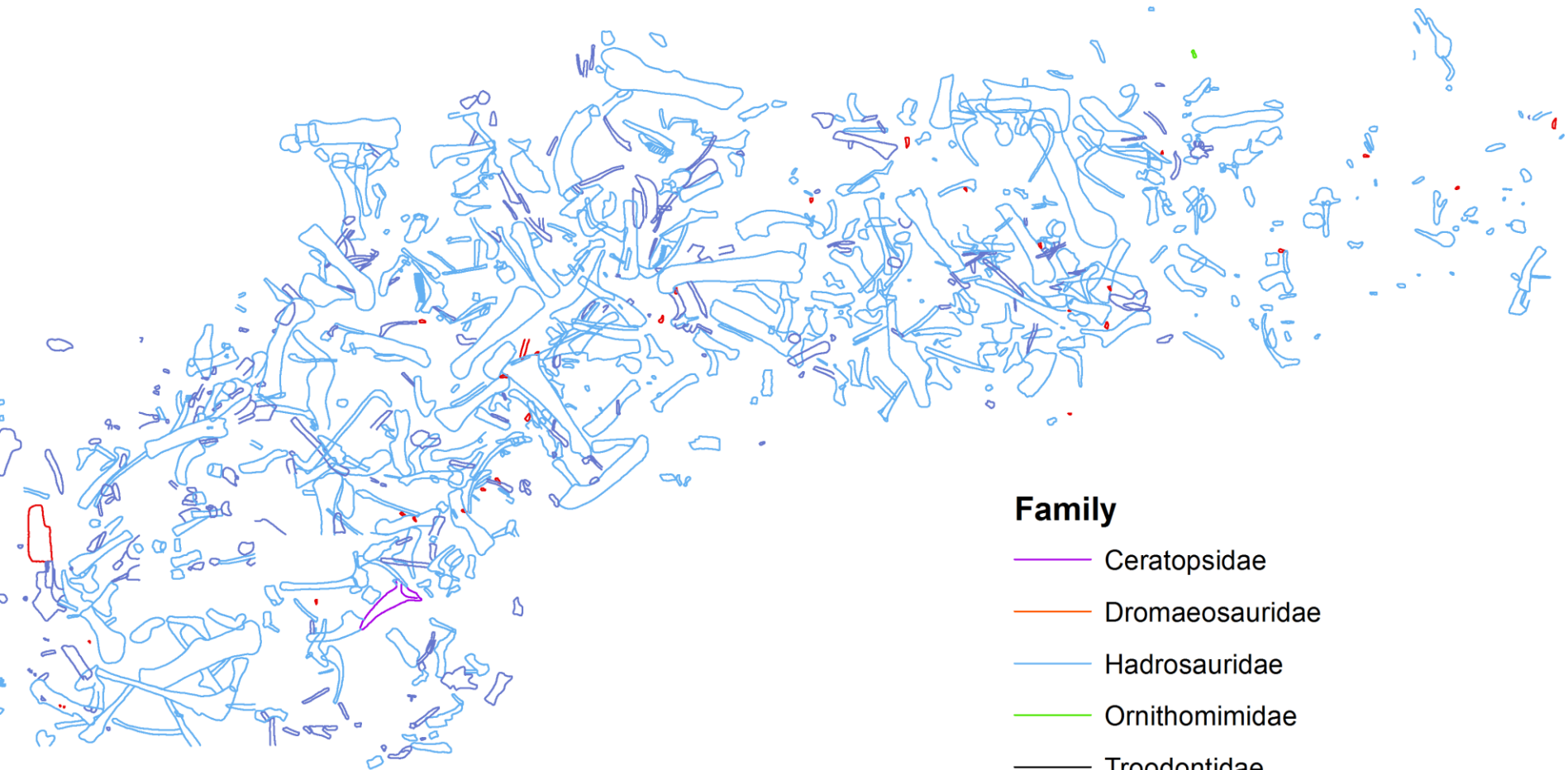


Family

- Ceratopsidae
- Dromaeosauridae
- Hadrosauridae
- Ornithomimidae
- Troodontidae
- Tyrannosauridae
- Unidentified



Useful GIS Features



Family

- Ceratopsidae
- Dromaeosauridae
- Hadrosauridae
- Ornithomimidae
- Troodontidae
- Tyrannosauridae
- Unidentified



Identify

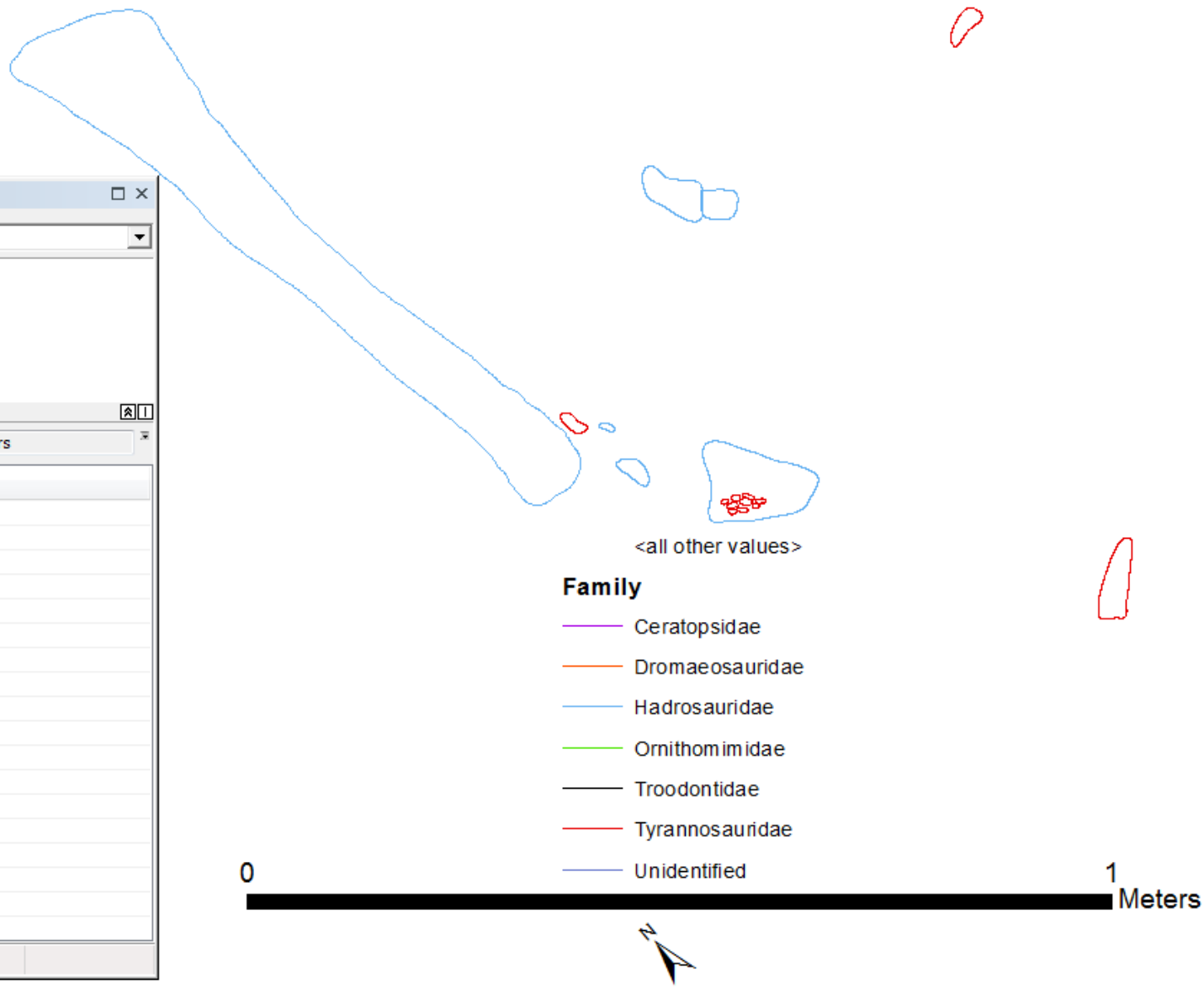
Identify from: <Top-most layer>

danek_elements
 54.5, L.3

Location: -12,639,980.975 7,064,135.185 Meters

Field	Value
FID	1510
Shape	Polyline
UID	1636
Qcoord	54.5, L.3
CatNum	DBB.2013.34
Identity	Femur
Family	Hadrosauridae
Longbone	1
TYPE	Element
Id	0
Quarry	Quarry 1

Identified 1 feature



Select by Attributes



Enter a WHERE clause to select records in the table window.

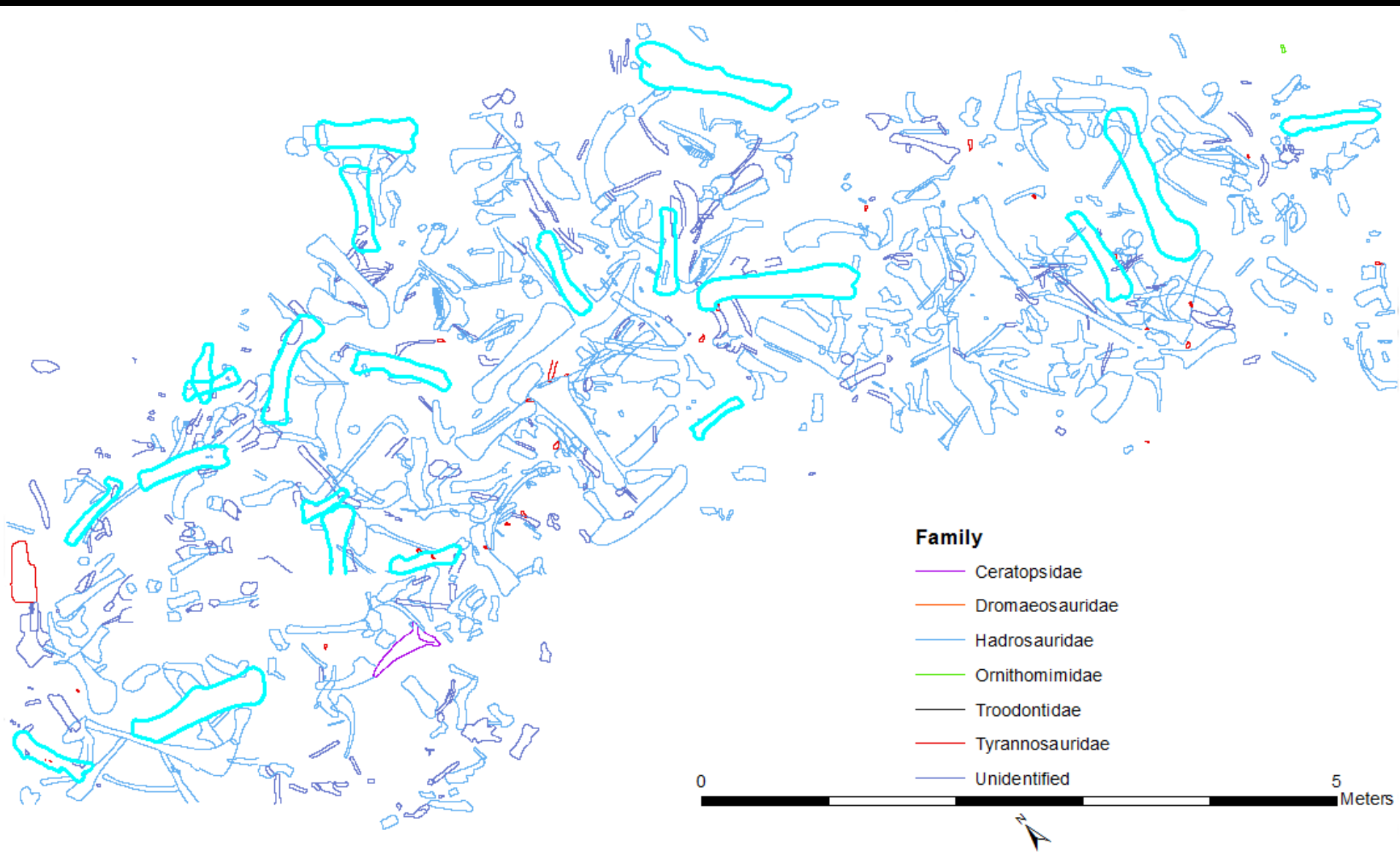
Method :

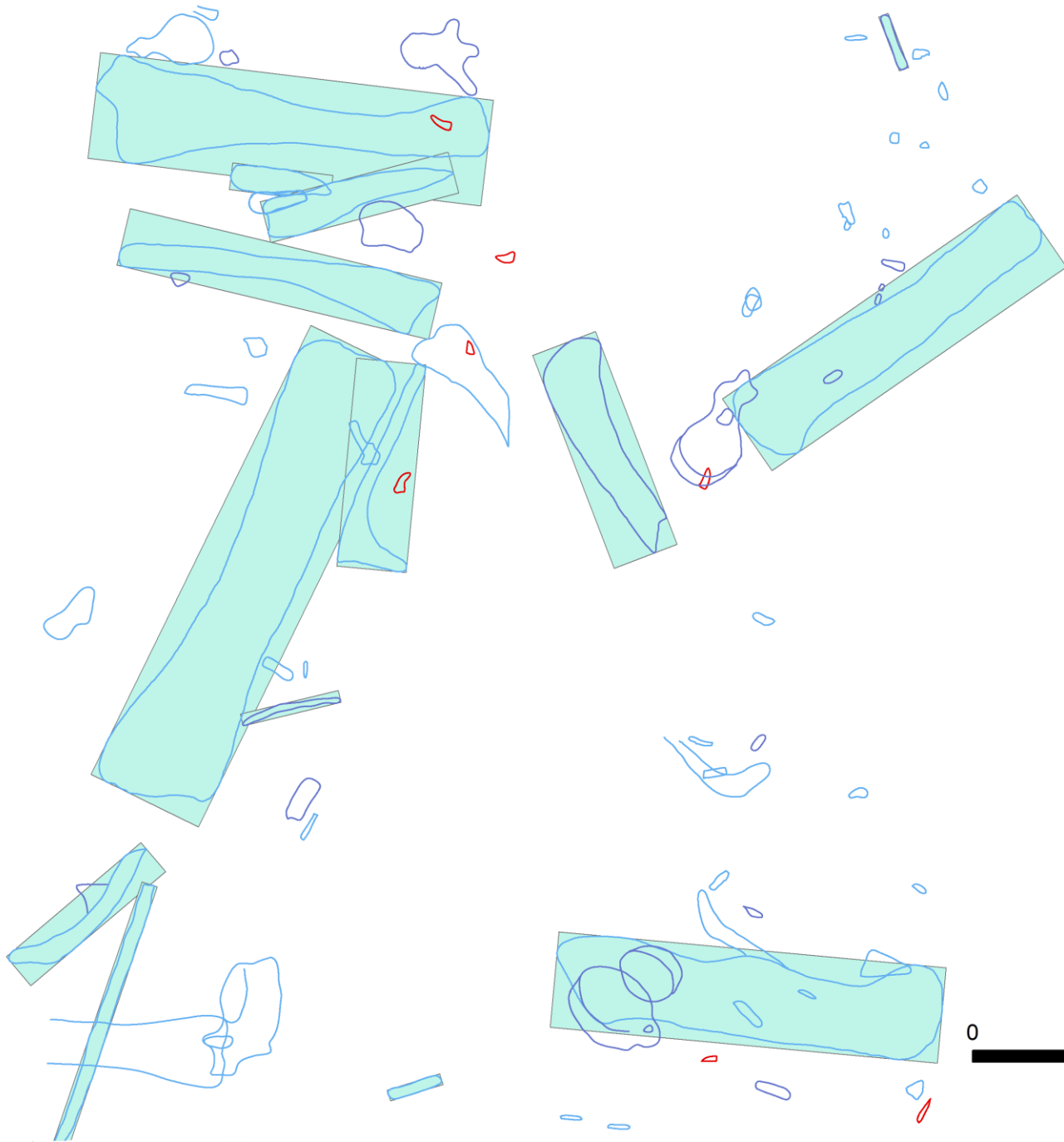
- "FID"
- "UID"
- "Qcoord"
- "CatNum"
- "Identity"

Go To:

SELECT * FROM Danek_Bonebed_20130820_1560 WHERE:

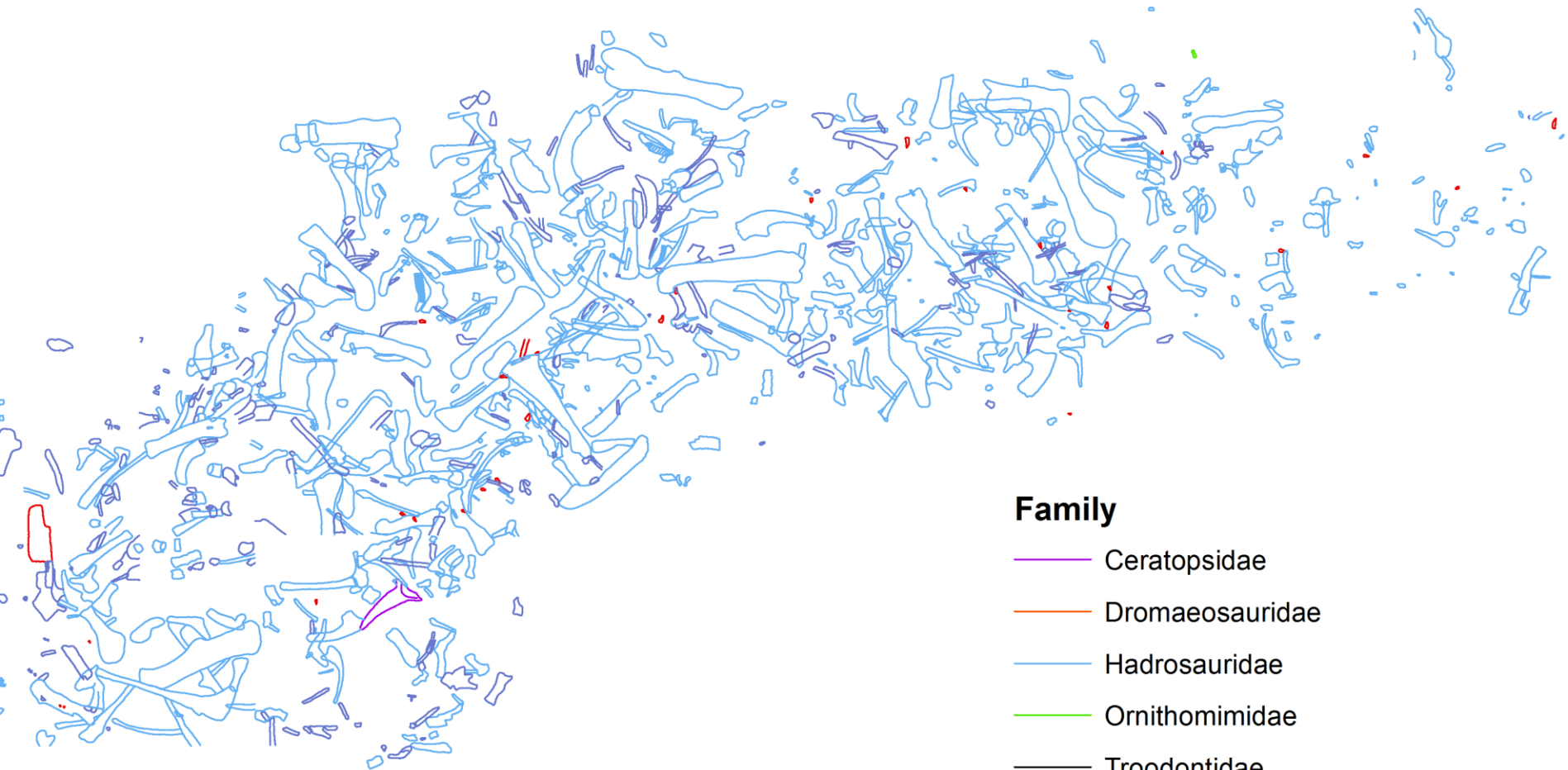
"Identity" = 'Femur'





0 1 Meters





Family

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- Dromaeosauridae
- Hadrosauridae
- Ornithomimidae
- Troodontidae
- Tyrannosauridae
- Unidentified

0 5 Meters



Conclusions

- Digitizing bonebed maps allow you to see big picture
- Using GIS allows for very easy manipulation of information for research

With Special Thanks To:

V. Arbour

M. Burns

J. Croghan

P. Currie

C. Nielsen

For suggestions and invaluable help