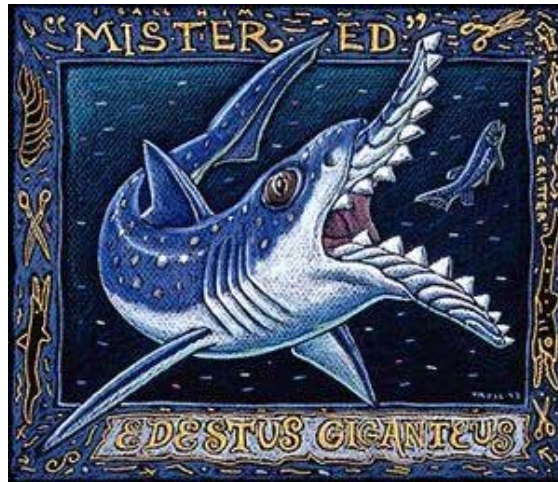


Chondrichthyans from the Pennsylvanian Minturn Formation of Colorado



Wayne Itano, Boulder, Colorado
Karen Houck, Eastern Kentucky Univ.
Martin Lockley, Univ. Colorado, Denver

Pennsylvanian Paleogeography

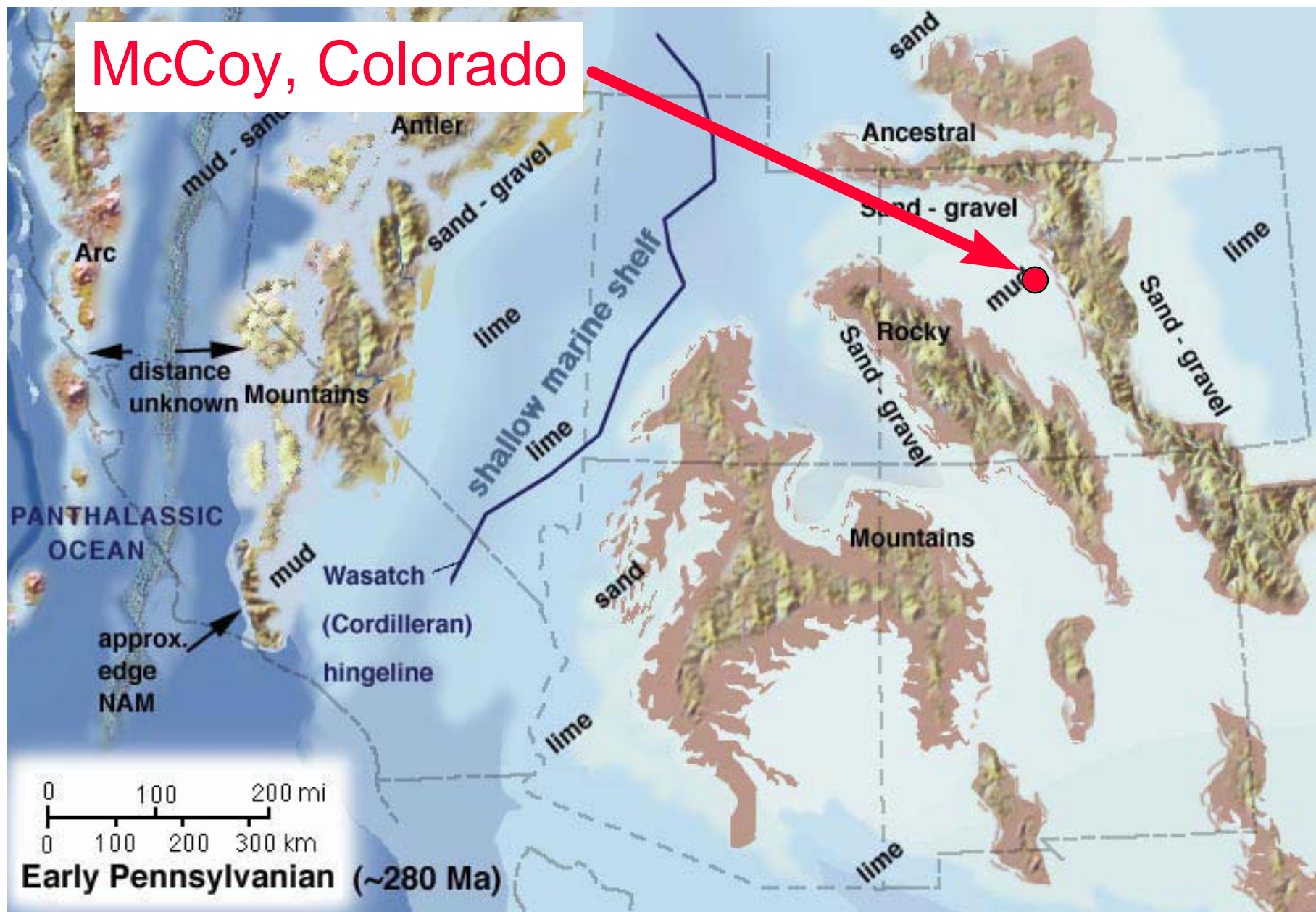


R. Blakey, Northern Arizona University

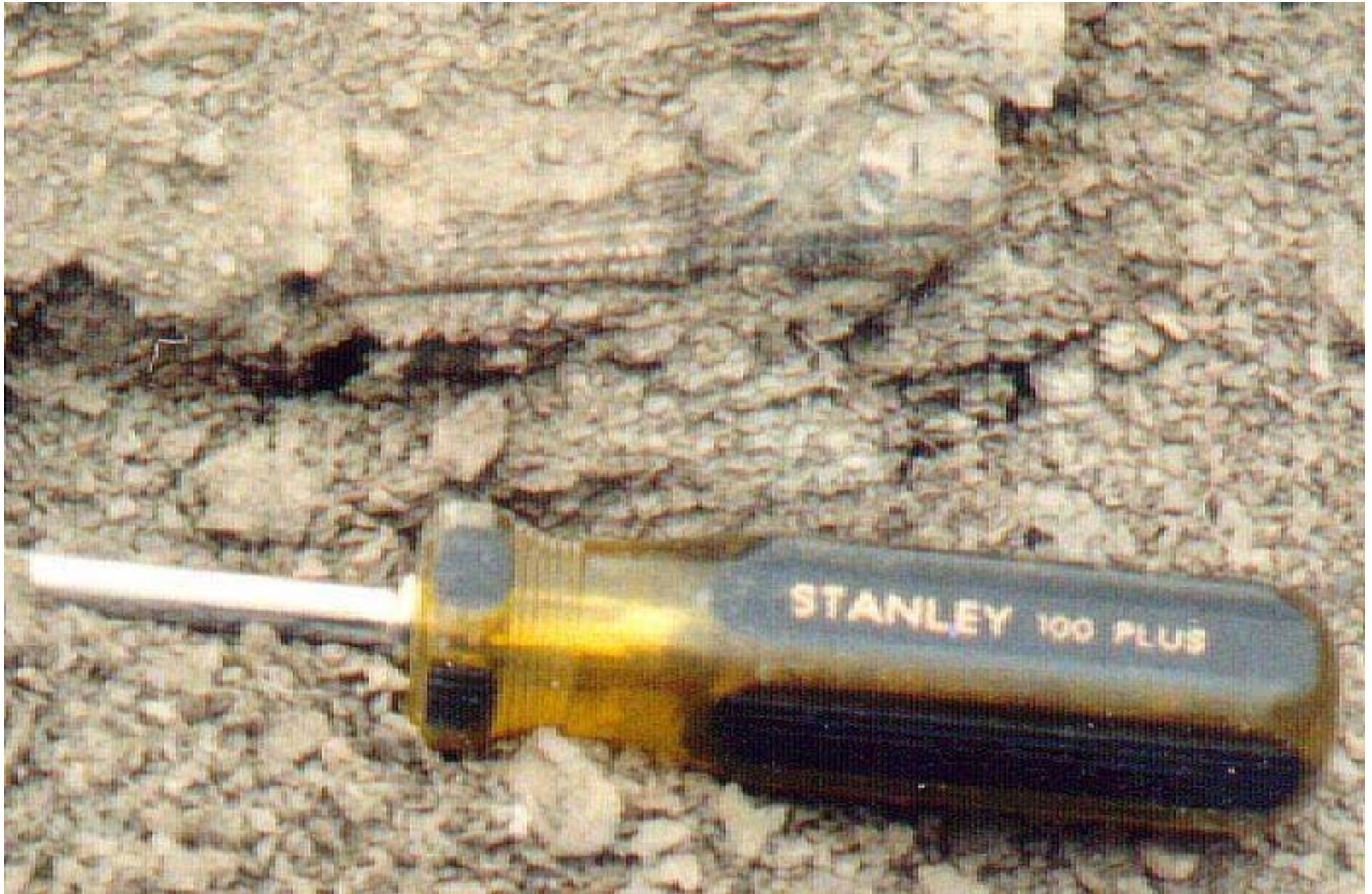
Southwestern US during the Pennsylvanian

(R. Blakey, Northern Ariz. Univ.)

McCoy, Colorado



Ctenacanthus spine, 10 August 1991

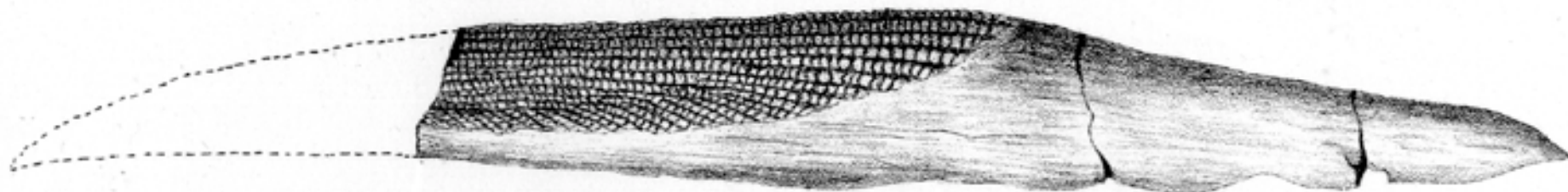


Ctenacanthus sp., Minturn Formation,
Pennsylvanian (late Atokan),
Eagle County, Colorado



← 18 cm →

McCoy *Ctenacanthus* spines compared with *C. buttersi*

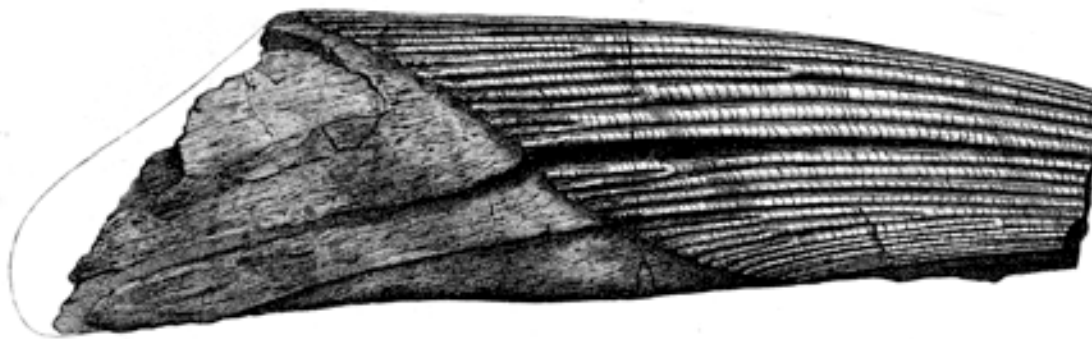


Ctenacanthus buttersi St. John & Worthen

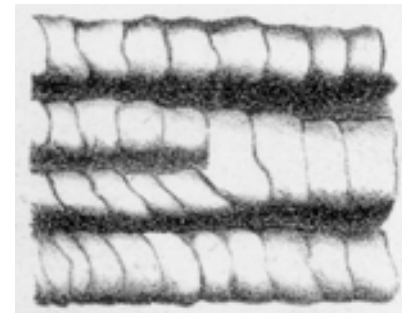


McCoy *Ctenacanthus* spine
from Univ. Colorado Museum

McCoy spine compared to
“*Ctenacanthus*” *furcicarinatus* Newberry



“*Ctenacanthus*” *furcicarinatus*

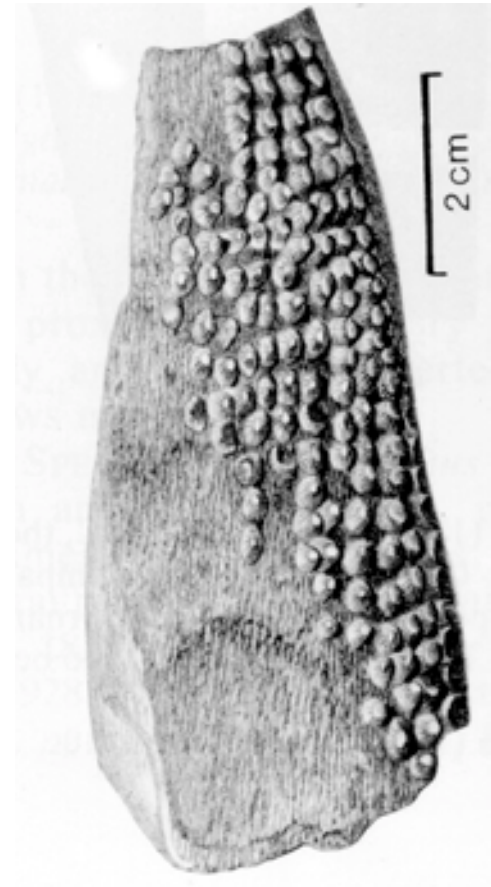


Close-up of costae

Large-noded spine fragment &
Bythiacanthus siderius (Leidy)

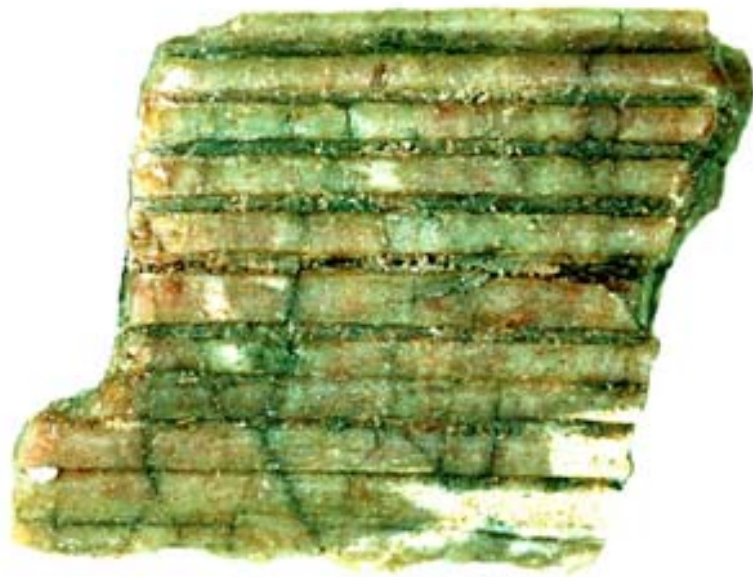


1 cm

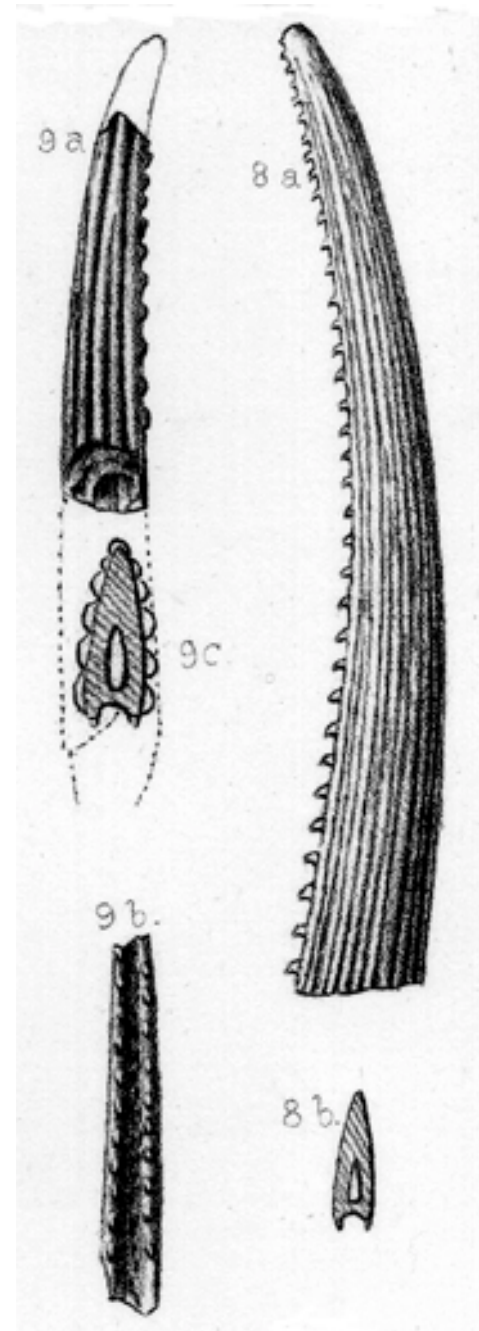


Bythiacanthus siderius

Acondylacanthus sp.



1 cm



A. gracillis St. John & Worthen

Physonemus sp.?

[*Xystracanthus*, *Batacanthus*, *Drepanacanthus*??]



1 cm

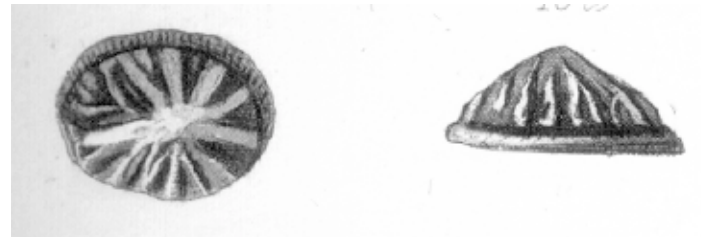


Physonemus acinaciformis

Petrodus sp.



5 mm



Petrodus patelliformis

Petalodont Teeth

All bars = 1 cm



Anterior



Polyrhizodus sp.



Janassa sp.



Lateral

Petalodus ohioensis



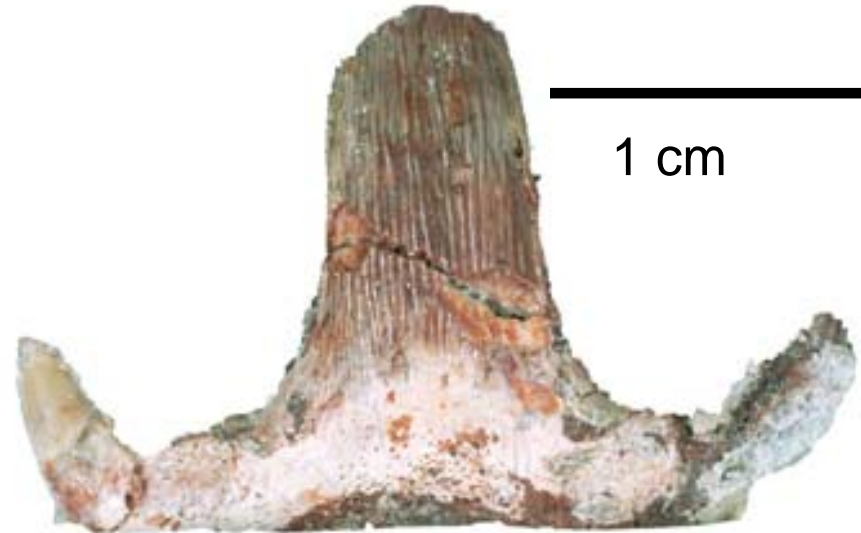
Peripristis semicircularis



“Cladodus” occidentalis Leidy
[Not *Symmorium reniforme* Cope]



1 cm



1 cm



1 cm

Edestus sp.



Courtesy of R. Troll



Edestus heinrichsi

Holocephalian tooth plates



1 cm



Lagarodus angustus



1 cm

Sandalodus sp.



1 cm

Cochliodont anterior tooth?

Unidentified tooth



5 mm

Most Abundant Teeth at 1 Locality

193	<i>Petalodus ohioensis</i>
73	" <i>Cladodus</i> " <i>occidentalis</i>
20	<i>Deltodus</i> sp.
15	<i>Lagarodus angustus</i>
10	cochliodont indet.

Conclusions

- The Minturn Formation has a diverse chondrichthyan fauna, associated with a rich benthic invertebrate fauna
- Most taxa are known from elsewhere in North America
- “*Cladodus*” *occidentalis* teeth may be associated with *Ctenacanthus* cf. *buttersi* finspines
- Other Colorado Paleozoic formations contain chondrichthyan faunas which have not been studied

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- Barbara Stahl

Access to collections

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- Ron Blakey
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