**Active Learning Exercise 3.1**

to accompany

*Vertebrate Life*, Tenth Edition

Pough • Janis

**Jaws *versus* No Jaws:**

**What Can Extinct and Extant Organisms Tell Us?**

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**Level of Difficulty:** Medium

**Relevant Terminology:** ecomorph, gnathostome, agnathan, extant

**Activity**

1. Jawless fishlike vertebrates were once successful and diverse, but now the overwhelming majority of extant fishlike vertebrates are gnathostomes. Why do you think that is?

2. Considering your answer to Question 1, how do you explain the persistence of any jawless taxa?

3. We have only fossils of extinct jawless fishlike vertebrates. Can we infer anything about their ecology and behavior by comparing their body forms to the body forms of extant fishes whose ecology and behavior are known?

4. Use a Google Image search to match body forms of extinct Paleozoic jawless fishes with extant fishes, and place them in ecomorphological groups.