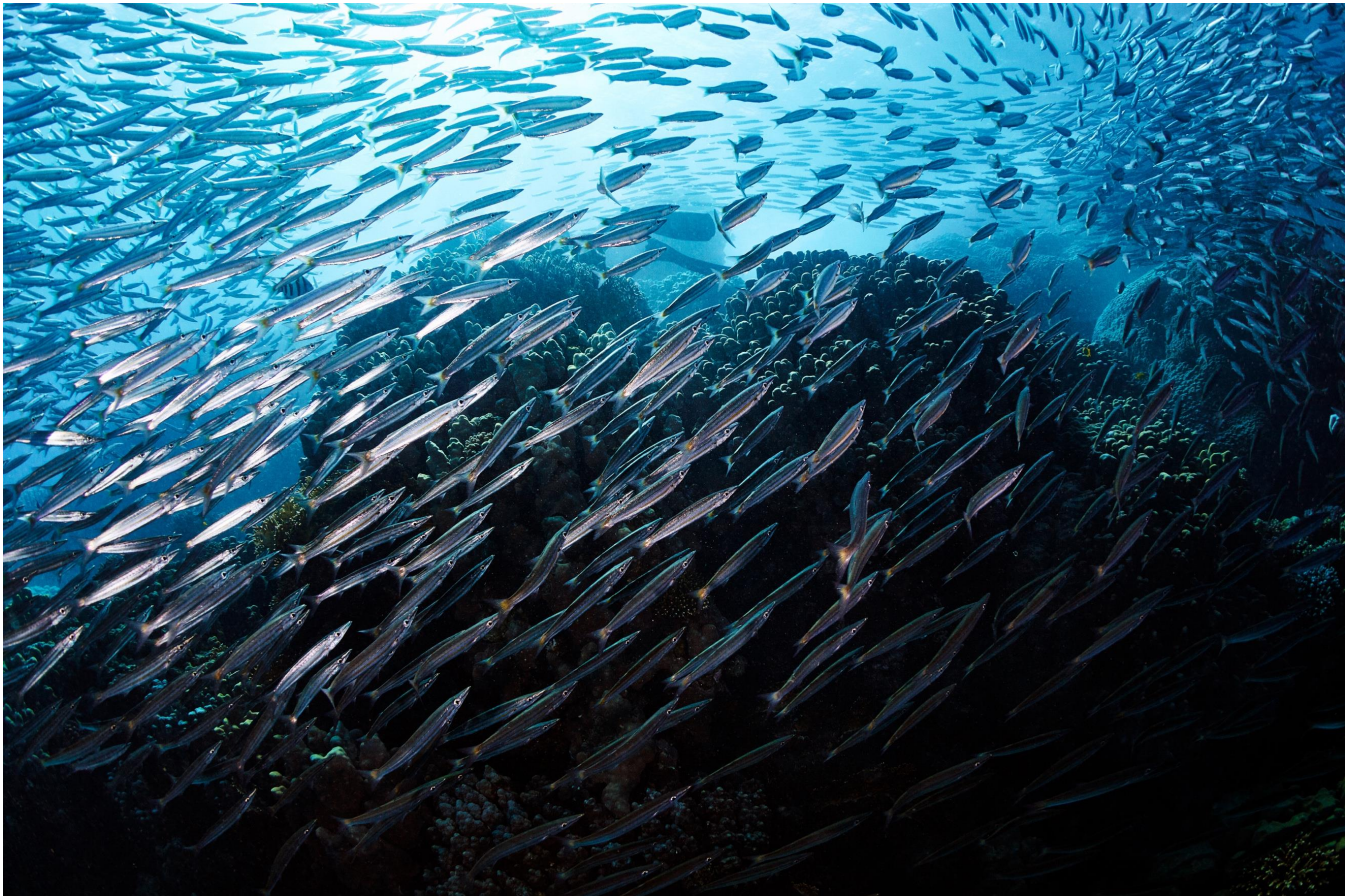


Benefits of Schools

FISH IMAGE



ELEPHANTS IMAGE



BEE IMAGE



BACKGROUND INFORMATION

Fish

Unlike human schools, fish schools are self-organizing. Thousands of fish swimming together are better able to avoid predators and catch their prey without ever colliding with each other. Fish use less energy when swimming in a school than alone, probably because they are able to take advantage of the movement of water created by their neighbors.

Elephants

Female elephant herds are made up of related females and their young. The herd is led by the matriarch, which is usually the oldest female of the group. Males leave the group when they become sexually mature (typically at 12–13 years of age) and form their own groups. The matriarch sets the activities of the herd: when she moves, other elephants follow in a line; when she stops to eat, they spread out to eat; and when the herd is threatened, the elephants cluster around the matriarch and follow her lead. When herds move across an open area in daylight, individuals typically bunch together and move quickly until they reach cover.

Bees, Part 1

A honey bee hive contains mostly female worker bees, a few male drones, and a single queen. The role of the queen bee is reproduction. She can lay as many as 1,500 eggs per day in the spring when the size of the hive population rapidly increases.

Bees, Part 2

The queen's every need is provided for by designated worker bees, which provide her with food and even dispose of her waste. Honey bees have thrived on this planet for over 10 million years but are now threatened by colony collapse disorder, the disappearance of the majority of worker bees in a colony. Scientists think the disorder might be caused by a combination of a parasitic mite that sucks the bees' blood, pesticide use, disease, and habitat loss.

| Image | Number of Organisms | Behavior(s) Observed | Possible Survival or Reproductive Advantages |
|--------------|---------------------|----------------------|--|
| 1: Fish | | | |
| 2: Elephants | | | |
| 3: Bees | | | |