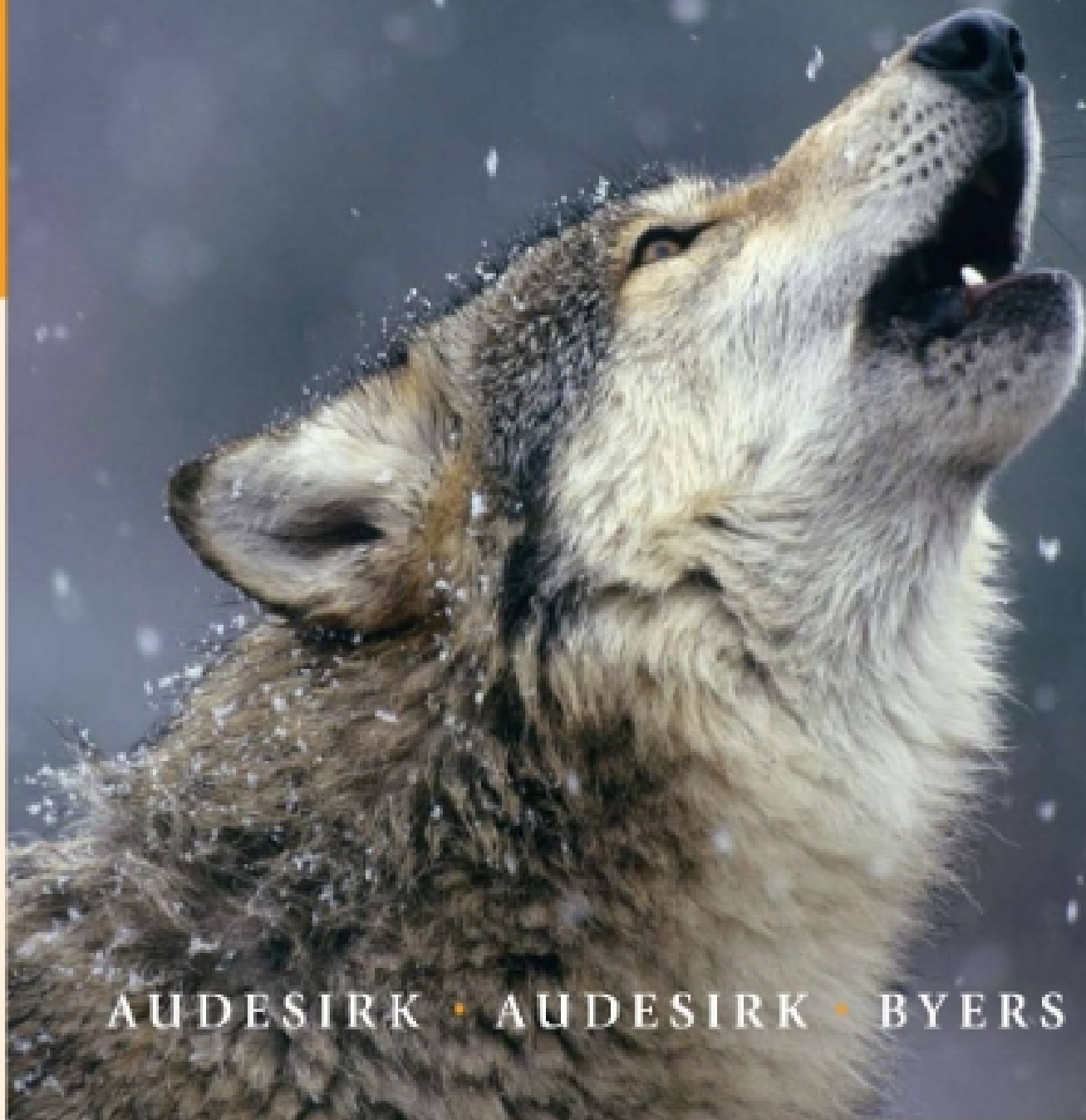


NINTH EDITION

BIOLOGY

LIFE ON EARTH



Chapter 39

The Senses

Lecture Outlines by Gregory Ahearn,
University of North Florida

Chapter 39 At a Glance

- 39.1 How Does the Nervous System Sense the Environment?
- 39.2 How Are Mechanical Stimuli Detected?
- 39.5 How Are Chemicals Sensed?

39.1 How Does the Nervous System Sense the Environment?

- A **receptor** is a structure that changes when it is acted on by a stimulus and then produces some sort of response
- A **sensory receptor** is an entire specialized cell that produces an electrical signal in response to specific stimuli
 - The receptor translates environmental stimuli into the language of the nervous system
 - Sensory receptors are grouped into categories according to the stimulus to which they respond