

Fecundity	514
Annual Reproductive Effort	520
Evolution of Clutch Size	524
BOX 17-1 <i>Physiological Constraints Shape Avian Life-History Traits</i>	507
BOX 17-2 <i>Anti-aging Mechanisms in Birds?</i>	511
BOX 17-3 <i>Young Female Tree Swallows Delay Breeding</i>	519

## **PART 6 Population Dynamics and Conservation**



### **CHAPTER 18 Populations 533**

Growth	533
Control	538
Limitation	540
Regulation	550
Long-Term Population Trends	558
BOX 18-1 <i>Rebound of the Short-tailed Albatross</i>	534
BOX 18-2 <i>Avian Flu</i>	548
BOX 18-3 <i>The Breeding Bird Survey</i>	562
BOX 18-4 <i>Global Warming and Seabirds</i>	564

### **CHAPTER 19 Species 571**

What Is a Species?	571
Allopatric Speciation	575
The Phylogenetic Species Concept	583
Population Size and Structure	585
Hybrids	590
Hybrid Zones	592
Behavior and Speciation	597
BOX 19-1 <i>Population Cohesion of Cuckoos</i>	573
BOX 19-2 <i>Character Heritability</i>	577
BOX 19-3 <i>Seven Rules of Speciation in Birds</i>	578
BOX 19-4 <i>A Ring Species in Siberia</i>	584

### **CHAPTER 20 Communities 603**

The Dynamics of Communities	603
Species Diversity	617

Competition 626  
BOX 20-1 *Stable Isotopes Clarify Seabird Food Webs* 605  
BOX 20-2 *Character Displacement Evolved Rapidly in Supertramps* 607  
BOX 20-3 *Distance to Cover Defines the Niches of Sparrows* 621  
BOX 20-4 *Competition Affects the Use of Foraging Sites by Tits* 632  
**CHAPTER 21 Conservation 635**  
The State of Birds 636  
Threats 639  
Past Excesses 645  
Hope 650  
Conservation by Design 660  
Site-Based Conservation 675  
The Conservation Movement 678  
BOX 21-1 *Symbol of Extinction: The Dodo* 646  
BOX 21-2 *Saving the Whooping Crane* 651  
BOX 21-3 *Loons and Lead* 658  
BOX 21-4 *A Seabird of the Old-Growth Forest* 674  
BOX 21-5 *Birding Ethics: American Birding Association* 683  
Bibliography 685  
Index 725