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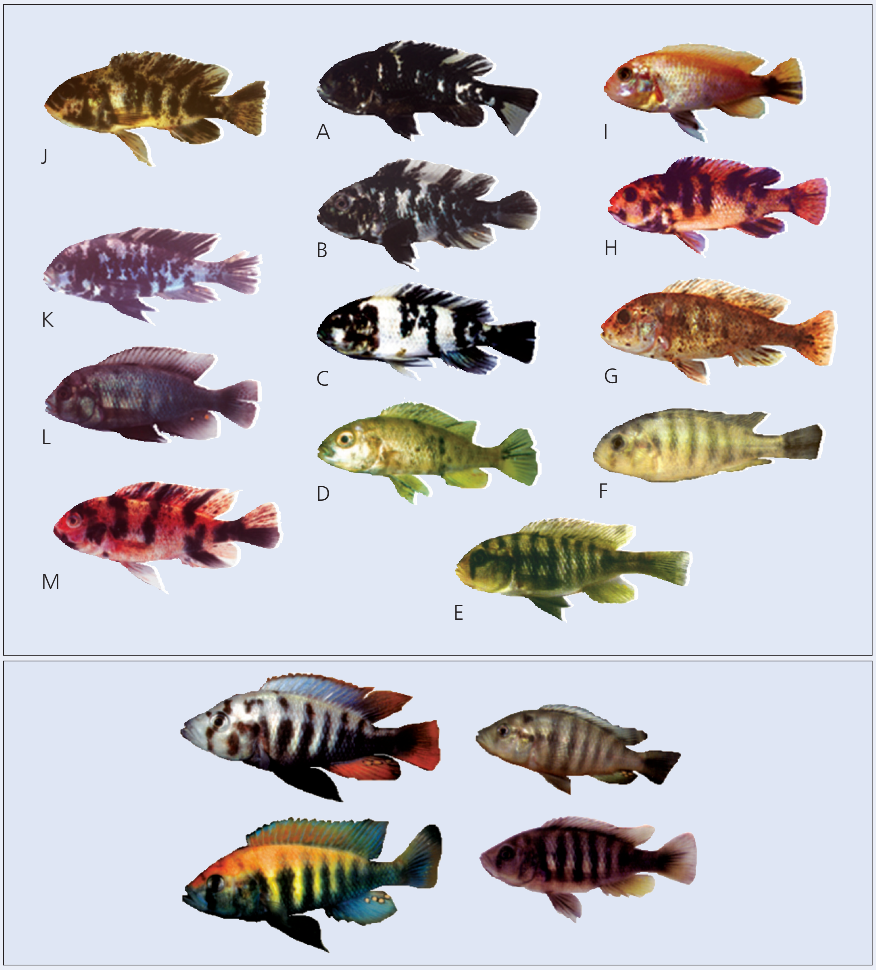

Plate 1 Variation among sympatric color morphs of Lake Victoria cichlids (Chapter 8). Top: *Neochromis omnicaeruleus* at Makobe Island. Letters A to J (females) and K to M (males) refer to Figure 8.2. A to D is a series of female genotypes that possess the WB gene (from top: AAM_AM_A, AaM_AM_A, AaM_Am, Aamm), I to F is a series of female genotypes that possess the OB gene (from top: BBM_BM_B, BbM_BM_B, BbM_Bm, Bbmm), E is a female of genotype aabb- -, J is a rare hybrid between WB and OB, and K to M are male types $AabbM_AM_A$, aabb- -, and $aaBbM_BM_B$. B and A are X-linked. Bottom: The sympatric Lake Victoria cichlid fish sister species *Pundamilia pundamilia* (top row: left male, right female) and *Pundamilia nyererei* (bottom row: left male, right female). These species are reproductively isolated in clear water environments by assortative female mating preferences. Where the water is turbid they hybridize and in very turbid water one slightly variable species occurs.

Plates 1-12 are available for download in colour from www.cambridge.org/9781107404182

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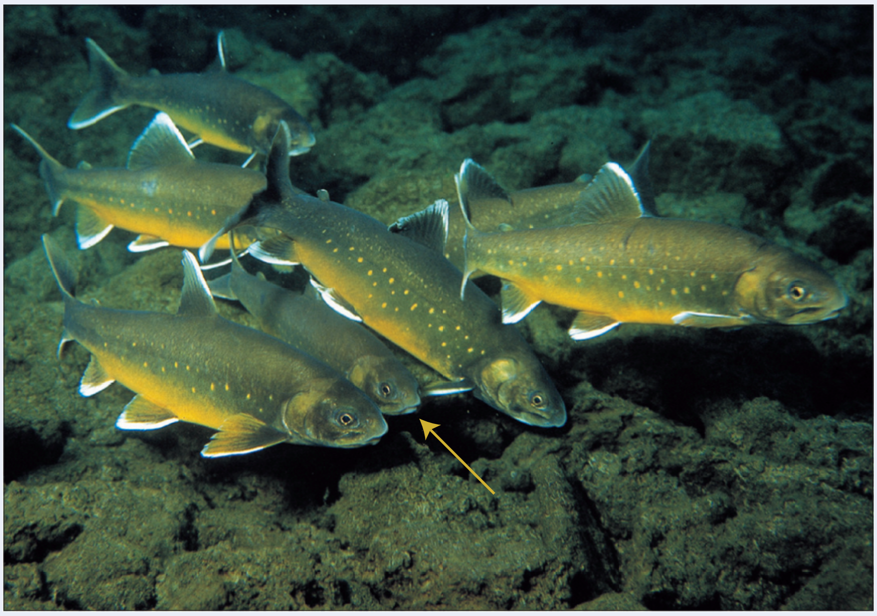
Plate 2 Male sticklebacks from Enos Lake, Vancouver Island (Chapter 9).
Top: Limnetic stickleback (*Gasterosteus aculeatus*) mainly feed on zooplankton in the open water and have a slender body and small mouth. Bottom: Benthics are larger and deeper-bodied fish that feed on benthic invertebrates inshore and in deeper sediments. Benthic males in Enos Lake have lost the typical red throat and instead exhibit black nuptial coloration, probably because of a red shift in the available light spectrum in deep water caused by tannins (Boughman 2002). *Source*: Pictures by E. Cooper.



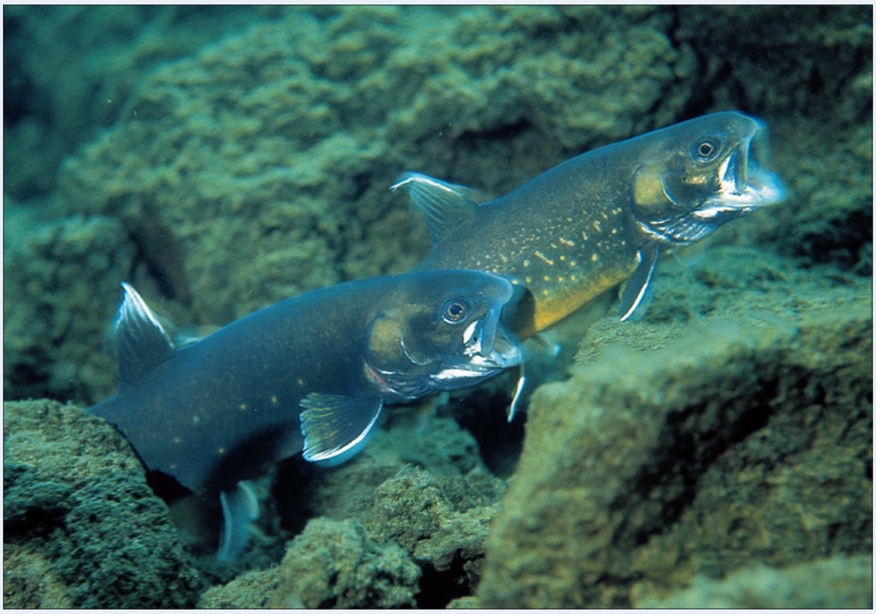


Plate 3 Charr at the spawning grounds in Lake Thingvallavatn, Iceland (Chapter 10). Top: A group of large benthivorous charr (*Salvelinus alpinus*) males compete for a female (arrowed). Bottom: A pair of charr in the spawning act, i.e., at the moment of releasing gametes. Pictures show an example of the ecological setting inhabited by charr, with a rugged bottom of broken lava where eggs are deposited between the stones.

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Plate 4 Two examples of insects forming host races (Chapter 11).
Top: The fruit fly *Rhagoletis pomonella* (male left, female right) has formed a new host race by shifting from hawthorns to apples in North America. Bottom: The brown planthopper *Nilaparvata lugens* forms host races on rice and related grasses in Asia. *Source*: Top picture by J.K. Clark, copyright University of California Regents.

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Plate 5 Predator–prey interactions among mites (Chapter 12).
Top: A two-spotted spider mite (*Tetranychus urticae*, right) is under attack by a specialist predatory mite (*Phytoseiulus persimilis*, left). Bottom: A soil predatory mite (*Hypoaspis aculeifer*, left) attacking a bulb mite (*Rhizoglyphus robini*, right). *Source*: Pictures by Bert Mans.

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Plate 6 Disruptive selection due to different pollinators (Chapter 13).
Hawkmoths (*Hyles lineata* – top) and hummingbirds (*Selasphorus* spp. – bottom) pollinating the red flowers of *Ipomopsis aggregata* (left) and the pale pink flowers of *I. tenuituba* (right). Both pollinators visit flowers of both species in a hybrid zone in Colorado, USA. However, hawkmoths prefer narrow flowers, while hummingbirds prefer wide, red flowers. As a result, disruptive selection on floral phenotype can occur in this hybrid zone, as postulated in some models of plant speciation. Because pollinator preferences are not absolute, however, they would not impose strong reproductive isolation between *I. aggregata* and *I. tenuituba* in sympatry.

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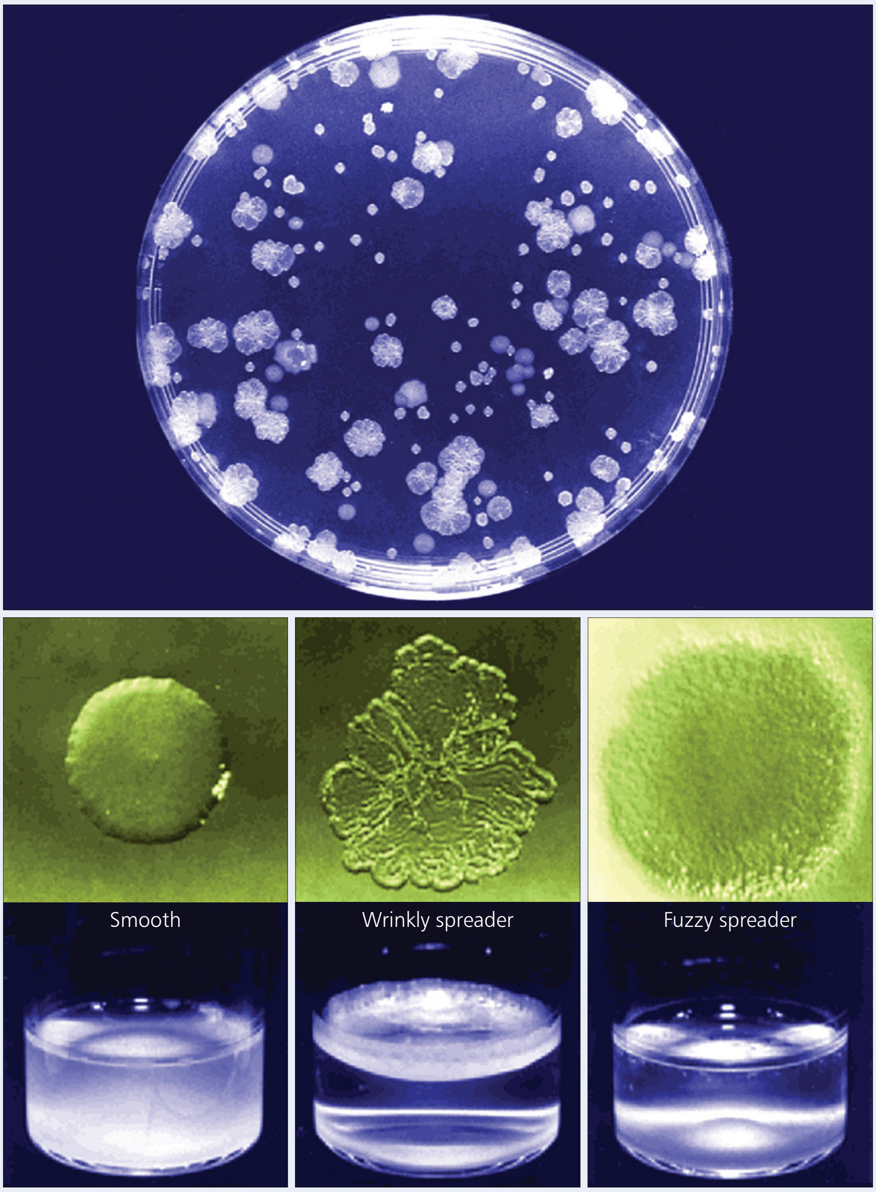

Plate 7 Phenotypic diversity and niche specificity among bacterial colonies (Chapter 14). Diversity among colony phenotypes within cultures is maintained by frequency-dependent selection (see Rainey and Travisano 1998). Top: Plate of *Pseudomonas fluorescens* colonies that have evolved in a spatially heterogeneous environment. Middle: Colony phenotypes of three distinct evolved morphs. Bottom: Niche specificity of the same three morphs in liquid culture; the differentially evolved morphs show marked niche segregation. *Source*: Rainey and Travisano (1998).

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Plate 8 Subspecies and species of *Salamandra* in Europe (Chapter 15).
Top: Examples of two subspecies of *S. salamandra* from Germany, *S. s. salamandra* (above) and *S. s. terrestris* (below). Middle left: *S. corsica* from Corsica. Middle right: *S. lanzai*, *S. atra*, and *S. atra aurorae* (from left to right) from the alps. Bottom left: *S. infraimmaculata* from the Near East. Bottom right: *S. algira* from North Africa. *Source*: Pictures by S. Steinfartz.

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Plate 9 Sympatric anole species from the Lesser Antilles (Section 16.2).
Top: *Anolis trinitatis*. Bottom: *A. griseus*. *A. trinitatis* is the smaller of the two and both are widely sympatric on the island of St Vincent. Sympatric pairs always differ in size; it remains to be shown whether this is because of size assortment or character displacement.

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Plate 10 Dewlap color and pattern diversity in Caribbean anole species (Section 16.3). Top left: *Anolis sagrei* is a trunk–ground anole from the Bahamas, but occurs also elsewhere in the Caribbean, including Cuba. Top right: *A. mestrei* is a trunk–ground anole from Cuba. Bottom left: *A. grahami* is a trunk–crown anole from Jamaica. Bottom right: *Chamaelinorops barbouri* is a leaf–litter dwelling species from Hispaniola with no ecological counterparts on other islands. *C. barbouri* falls phylogenetically within *Anolis*.

Plate 11 Giant senecios and giant lobelias in Africa (Chapter 17).
Lobelia deckenii subsp. *deckenii* (left) and *Dendrosenecio kilimanjari* subsp. *cottonii* (right) show convergent evolution: both have large leaf rosettes perched atop wide stems cloaked with a mantle of marcescent foliage. The shown giant lobelia has an emerging inflorescence, which will grow to a height of ca. 1 m at maturity.

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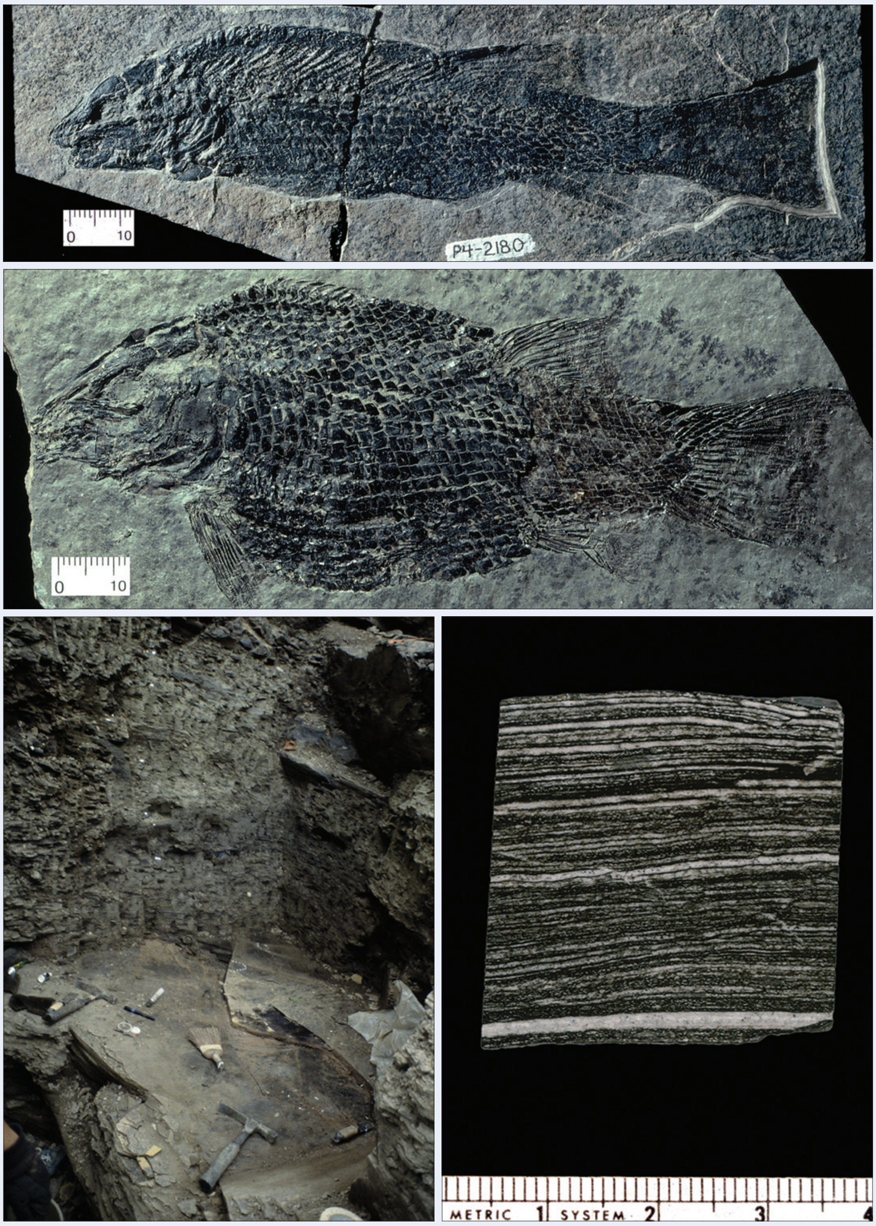

Plate 12 Fossils from the Newark Basin in eastern North America (Chapter 18). Top: *Semionotus greenwoodi*. Middle: *S. saginatus*. Bottom left: The excavation site at an Early Jurassic deposit of deep lake sediments of cycle P4. Bottom right: A sample of lake sediment from the Late Triassic Lockatong Formation showing sedimentary couplets (varves) that comprise a black organic-rich layer and a white layer rich in calcium carbonate. Both layers were deposited within the course of a single year.

