
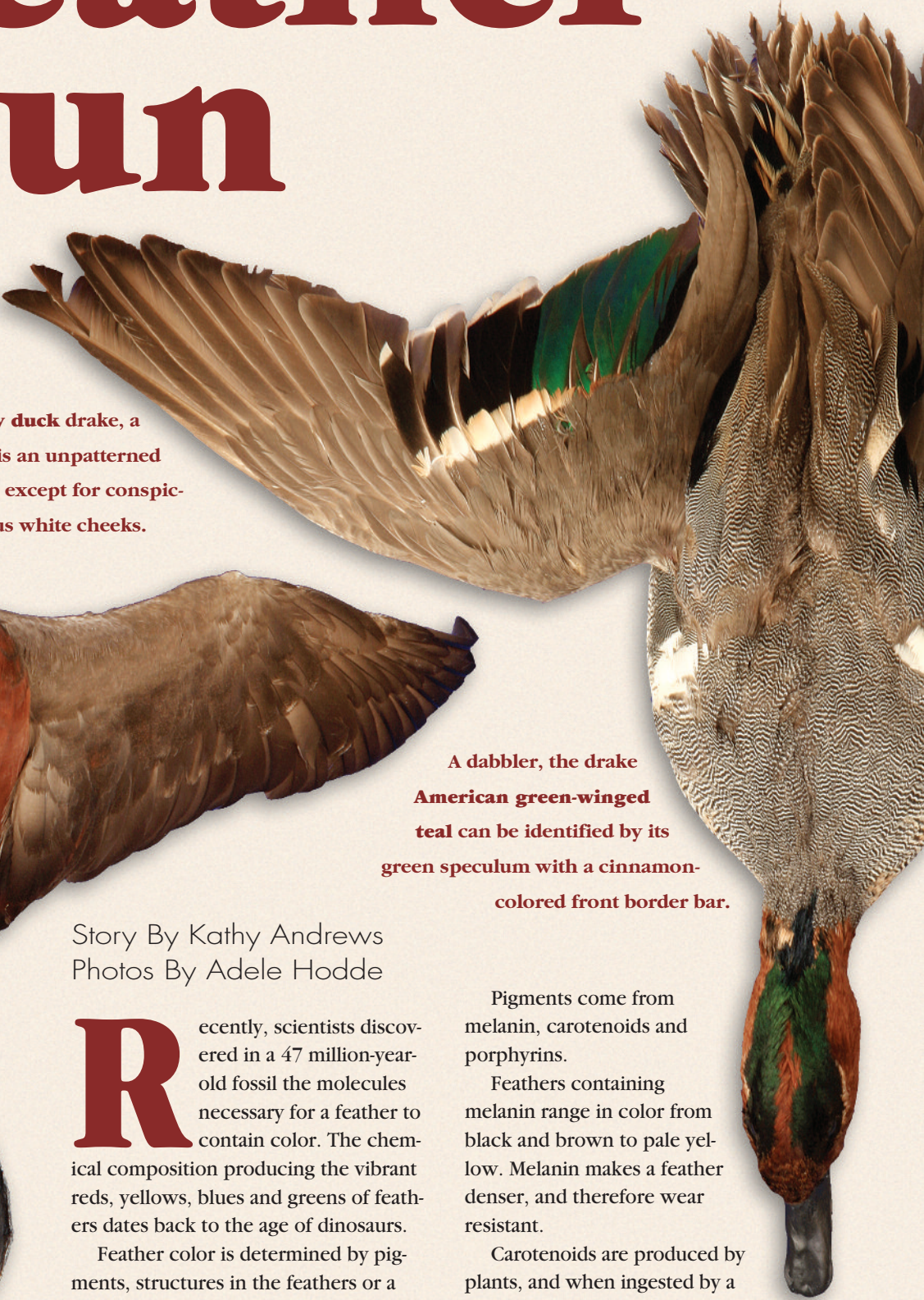


Birds of a feather flock together...is that why ducks have differently colored speculums?

Feather Fun



The ruddy duck drake, a diver, is an unpatterned duck except for conspicuous white cheeks.



A dabbler, the drake American green-winged teal can be identified by its green speculum with a cinnamon-colored front border bar.

Story By Kathy Andrews
Photos By Adele Hodde

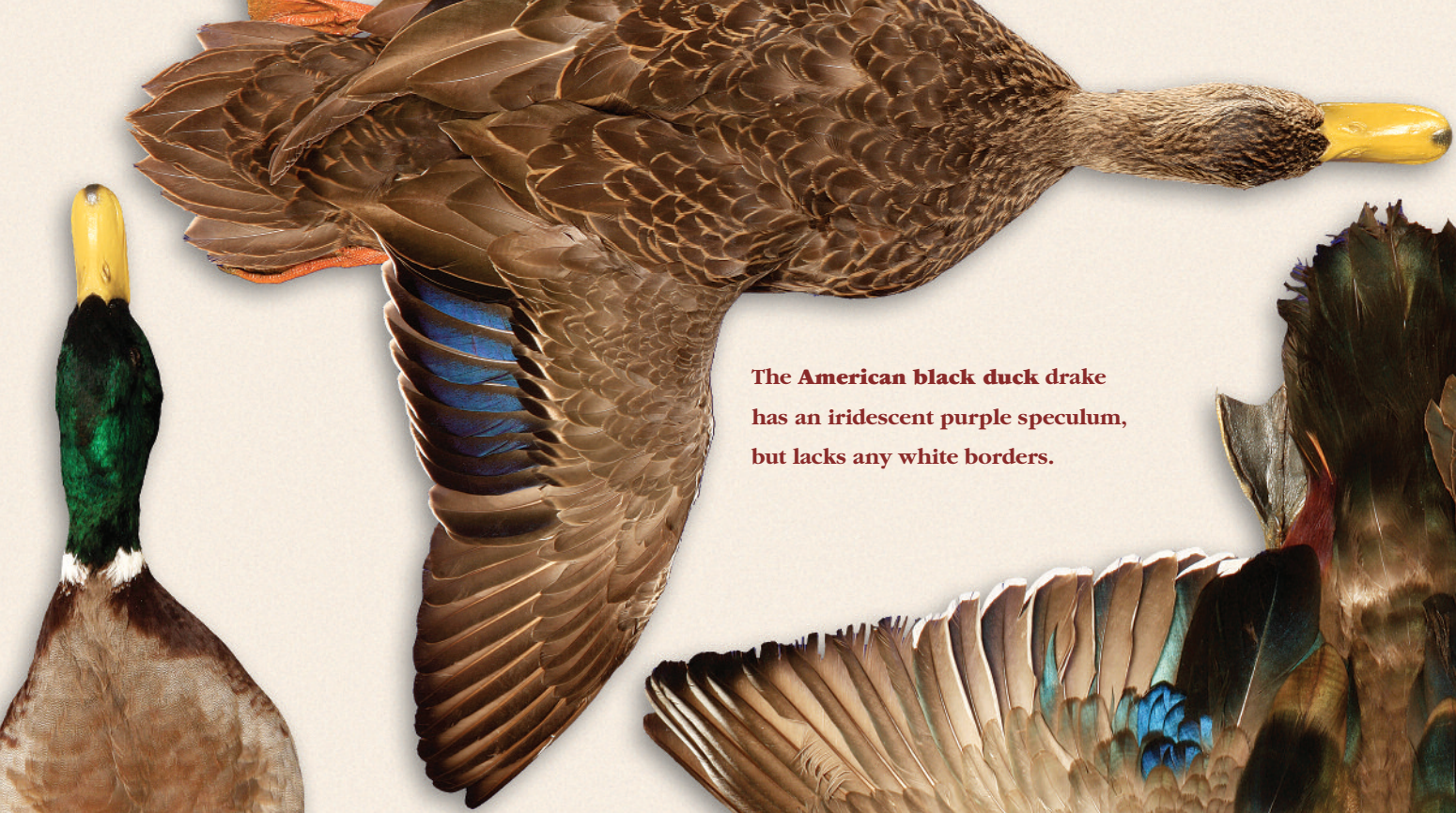
Recently, scientists discovered in a 47 million-year-old fossil the molecules necessary for a feather to contain color. The chemical composition producing the vibrant reds, yellows, blues and greens of feathers dates back to the age of dinosaurs.

Feather color is determined by pigments, structures in the feathers or a combination of both.

Pigments come from melanin, carotenoids and porphyrins.

Feathers containing melanin range in color from black and brown to pale yellow. Melanin makes a feather denser, and therefore wear resistant.

Carotenoids are produced by plants, and when ingested by a



The American black duck drake has an iridescent purple speculum, but lacks any white borders.



Commonly called a greenhead, a drake mallard has a purplish-blue, iridescent speculum with white bars on the front and back borders.



Both sexes of wood duck have a blue-green speculum with white edging on the wing's trailing edge.

bird this pigment is absorbed by developing feathers. Yellow, orange and red colors are a result of carotenoids, and when present along with melanin an olive-green color results. Birds produce the third pigment type, porphyrins, in their body, which is expressed in green, red, brown and pink feather colors.

Blues, greens and iridescent colors are a result of layers of structures within the feathers that reflect or absorb light. These structures explain the phenomenon of a feather appearing black from one angle, but becoming vividly iridescent when sunlight hits it from a different perspective.

Iridescent colors are especially intense on the speculum, or patch of color on the trailing wing edge, of ducks. But not all ducks.

Ducks are divided into two groups: Divers and dabblers.

Species such as redheads and ruddy ducks are in the diver family. Generally gray, white or black in color, the speculum of these birds lacks any iridescence. Other visual references used to identify a bird as a diver include feeding by diving into deep water, pattering on

the surface for some distance before taking flight, carrying their tail low in the water and having a fast wing beat.

Ducks with a brilliantly colored speculum are classified as dabblers. In contrast to the former group, dabblers tip up while feeding in shallow water, jump upward and quickly take flight, carry their tail high when sitting on the water and possess a slow wing beat.

Whether a waterfowl hunter or a birder, and whether you spot ducks in the water or in the air, these distinguishing characteristics can help you quickly narrow the range of identification options.

