by Paul Hess

Find Expert Help on ID-Frontiers

December 1996 brought birders a phenomenal gift: the ID-Frontiers listserver devoted to advanced bird identification. Suddenly, someone stumped by a question that no field guide could answer had instant access to worldwide expertise. Creator (and still listowner) Will Russell had written in his inaugural column as field identification editor of *Birding* (January/February 1973), "Collectively, the experience of this continent's birders is immense, and I view my task as bringing it out and publishing it."

The ID-Frontiers listserver has been an important forum for solving difficult identification problems since 1996. For instance, which subspecies is this **Dark-eyed Junco?** The answer—possibly a "Cassiar" Junco—was discussed at length for four days in January 2004. *Waterbury, Connecticut; 10 November 2002. © Mark Szantyr.*

A quarter-century later, immensely experienced birders flocked to Russell's new electronic forum. Within a few days after he announced ID-Frontiers on the BirdChat listserver, the likes of Paul Lehman, David Sibley, Louis Bevier, Kimball Garrett, and Ian McLaren were illuminating subjects as familiar as separation of female Bullock's and Baltimore Orioles and as specialized as identification of the *barrovianus* subspecies of Glaucous Gull. Two weeks later Chris Benesh summarized participants' elation: "This discussion on Western Flycatchers highlights the need for this type of listserv. What a great exchange of information!"

The ID-Frontiers archives are an encyclopedic compendium of knowledge, much of it revealed for the first time. Search the subject line for "Little Stint": 94 messages pop up, many of them extraordinarily detailed, often linked to photographs, and sometimes evaluating little-known field marks for Old World stints and New World peeps. Search for "Western Flycatcher", "Cordilleran Flycatcher", and "Pacific-slope Flycatcher": 56 postings include the most authoritative information ever published about why Cordilleran and Pacific-slope contact calls are not definitively diagnostic. Search for "gulls": 2,371 results prove that ID-Frontiers has been a paradise for larophiles. Speaking of gulls, plunge into 517 messages headlined "Thayer's", "Kumlien's", or "Iceland" and spend countless hours studying important analyses—some unnervingly indeterminate—that attempt to draw identifiable lines among the taxa.

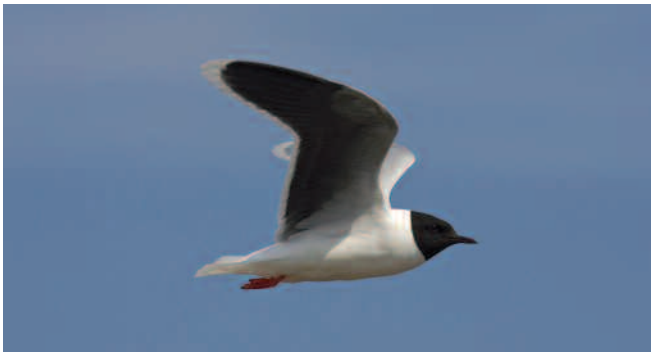
Continuous threads run to opposite extremes of length. At the short end, perhaps no one knew or cared which Isabelline Shrike subspecies was photographed in Norway, or whether a Marbled Murrelet flaps its wings while floating on the water. At least, no one replied to the list. At the long end, an eight-day conversation began in December 2005 with a Harlan's Hawk sighting and spun out to 70 discourses ranging (and raging) through holistic identification, birding skills, human cognitive functions, and broad social science. Finally, Russell steered the list politely back to its core purpose of identification. "I've tried not to interfere with discussions unless they turned nasty, were hopelessly inappropriate, or went on way after the last useful thing had been said. I've been pleasantly surprised at how infrequently I felt obliged to bring a discussion to an end," he says (personal communication). Soon came a new record-breaker—a two-week cascade of 80 queries, quarrels, pleadings, treatises, and screeds in March 2006 concerning the quality of evidence that the Ivory-billed Woodpecker survives. Russell let this historic thread burn itself out. Combined, those 150 commentaries were as profound a quest for truth, accuracy, and common sense as anything in the ornithological literature.

Approaching its 10th birthday, ID-Frontiers is as lively as on the day it was born. Even the foremost experts learn from it. Bird records committees turn to it. When field guides fail, it is a place for everyone to go for help. Use the archives and join the e-mail list at <listserv.arizona.edu/archives/birdwg01.html>, or read the daily postings on

Jack Siler's website <birdingonthe.net/mailinglists/FRID.html> or at <surfbirds.com/birdemail.html>.

Major Revision of Gull Taxonomy

Which gull species is the closest taxonomic relative of Little Gull? Is it Bonaparte's? Black-headed? Perhaps Franklin's or Laughing? A recent genetic analysis of the Laridae shows that it is Ross's Gull—a species so distinctive that it has stood alone in the genus *Rhodostethia* for more than 160 years. The link between Little and Ross's as sister species—i.e., more closely related to each other than to any other larid—is a result of the most extensive molecular phylogeny of gulls yet published. Jean-Marc Pons, Alexandre Hassanin, and Pierre-André Crochet reported the study in 2005 (*Molecular Phylogenetics and Evolution* 37: 686–699).



In adult plumage this **Little Gull** looks nothing like a Ross's Gull, but the two are, in fact, sister species (more closely related to each other than to any other larid). Their relationship is among the surprising findings of a recent phylogenetic analysis of 53 gull species. *Vaala, Finland; June 2004. © Jari Peltomäki / VIREO.*

The phylogeny is based on a segment of mitochondrial DNA composed of portions of the cytochrome *b* sequence and the control region in 53 gull species. The outcome is a proposed taxonomic revision that divides the Laridae into ten genera:

- *Larus*—23 "white-headed" species, retained in the familiar genus *Larus*, four of them placed in a "band-tailed" subgroup.
- *Chroicocephalus*—11 "masked" species including Black-headed Gull and Bonaparte's Gull.
- *Leucophaeus*—five "hooded" species including Laughing Gull and Franklin's Gull, but also the utterly dissimilar Gray Gull (*L. modestus*) and Dolphin Gull (*L. scoresbii*) of South America and Lava Gull (*L. fuliginosus*) of the Galapagos.
- *Ichthyaetus*—six Palearctic species in a generally "black-headed" group, but including white-headed Audouin's Gull (*I. audouinii*).
- *Hydrocoloeus*—Little Gull and Ross's Gull, differing sharply in adult plumage but classified as congeneric based on numerous shared phenotypic and behavioral traits and close genetic relationship; their immature plumages are similar, too.
- *Xema*—Sabine's Gull, retained in its monotypic genus.
- *Pagophila*—Ivory Gull, also unchanged from its monotypic genus. Ivory and Sabine's are sister species but, despite their very close genetic relationship, are kept in separate genera because of morphological, ecological, and behavioral differences.
- *Rissa*—Black-legged Kittiwake and Red-legged Kittiwake, retained in their traditional genus.
- *Saundersilarus*—Saunders's Gull, for which no close relatives have been found.
- *Creagrus*—Swallow-tailed Gull, retained in its monotypic genus.

Pons and his colleagues pointed to a "striking...lack of concordance between plumage characters and species relationships" within most of the groups. Nevertheless, the authors are confident that the four main groups they propose—white-headed, masked, hooded, and black-headed—reflect true evolutionary history. First, the groups are strongly supported by three methods of phylogenetic analysis. Second, although the results are contrary to older hypotheses based on osteology and adult morphology, the new groups do connect species that are similar in voice, behavior, or plumage of juvenile and immature birds.

At the same time, for various reasons, the authors regard their revisions as tentative. Specifically, they note two limitations of their analysis. Within groups, the relationships of species are often poorly defined because of low genetic differentiation and possible effects of hybridization. Among groups, larids' deepest phylogenetic relationships have been obscured by the family's complex evolutionary history. Jonathan Dwight's remark 81 years ago in his magisterial treatise *The Gulls (Laridae) of the World: Their Plumages, Moults, Variations, Relationships, and Distribution* remains timelessly cogent: The family "does not lend itself readily to subdivision."

NOTE: A complete enumeration of the 53 species in the Pons et al. study is available online at <americanbirding.org/pubs/birding/archives/vol38no5p23w1.pdf>.

The following genera were proposed in 2005 by J.-M. Pons, A. Hassanin, and P.-A. Crochet in a taxonomic revision of the gull family: "Phylogenetic relationships within the *Laridae* (Charadriiformes: *Aves*) inferred from mitochondrial markers" (*Molecular Phylogenetics and Evolution* 37:686–699).

Larus ("white-headed" group)	
Heermann's Gull	*L. heermanni*
Mew Gull	*L. canus*
Ring-billed Gull	*L. delawarensis*
California Gull	*L. californicus*
Herring Gull	*L. argentatus*
American Herring Gull	*L. smithsonianus*
Yellow-legged Gull	*L. cachinnans*
Caspian Gull	*L. michahellis*
Armenian Gull	*L. armenicus*
Thayer's Gull	*L. thayeri*
Iceland Gull	*L. glaucoides*
Lesser Black-backed Gull	*L. fuscus*
Slaty-backed Gull	*L. schistisagus*
Yellow-footed Gull	*L. livens*
Western Gull	*L. occidentalis*
Glaucous-winged Gull	*L. glaucescens*
Glaucous Gull	*L. hyperboreus*
Great Black-backed Gull	*L. marinus*
Kelp Gull	*L. dominicanus*

Larus ("band-tailed" group)	
Pacific Gull	*L. pacificus*
Olrog's Gull	*L. atlanticus*
Belcher's Gull	*L. belcheri*
Black-tailed Gull	*L. crassirostris*

Chroicocephalus ("masked" group)	
Slender-billed Gull	*C. genei*
Bonaparte's Gull	*C. philadelphia*
Red-billed Gull	*C. scopulinus*
Silver Gull	*C. novaehollandiae*
Black-billed Gull	*C. bulleri*
Andean Gull	*C. serranus*
Brown-hooded Gull	*C. maculipennis*
Black-headed Gull	*C. ridibundus*
Brown-headed Gull	*C. brunnicephalus*
Gray-hooded Gull	*C. cirrocephalus*
Hartlaub's Gull	*C. hartlaubii*

Ichthyaetus ("black-headed" group)	
Relict Gull	*I. relictus*
Audouin's Gull	*I. audouinii*
Mediterranean Gull	*I. melanocephalus*
Great Black-headed Gull	*I. ichthyaetus*
Sooty Gull	*I. hemprichii*
White-eyed Gull	*I. leucophthalmus*

Leucophaeus ("hooded" group)	
Laughing Gull	*L. atricilla*
Franklin's Gull	*L. pipixcan*
Lava Gull	*L. fuliginosus*
Gray Gull	*L. modestus*
Dolphin Gull	*L. scoresbii*

Hydrocoloeus	
Little Gull	*H. minutus*
Ross's Gull	*H. roseus*

Saundersilarus	
Saunders's Gull	*S. saundersi*

Xema	
Sabine's Gull	*X. sabini*

Pagophila	
Ivory Gull	*P. eburnea*

Creagrus	
Swallow-tailed Gull	*C. furcatus*

Rissa	
Black-legged Kittiwake	*R. tridactyla*
Red-legged Kittiwake	*R. brevirostris*

Birds Face Threat in Oak Woodlands

Coastal oaks began to bleed 10 years ago in California. Reddish fluid oozing from the trunk is an early symptom of Sudden Oak Death (SOD), a fungal disease that first appeared in North America in Marin County in 1995. It has killed tens of thousands of tanoak, coast live oak, black oak, and Shreve oak trees in 14 counties along the central and northern coast of California and in Curry County, Oregon. Oak woodlands had already faced two serious problems before SOD arrived: losses to urbanization and agriculture, plus poor regeneration of oaks to replace old ones. The triple threat is an increasingly serious conservation concern.

Sudden Oak Death is killing large numbers of trees in California's coastal oak woodlands. According to a recent analysis, destruction of woodlands by the disease could cause substantial population losses for **Hutton's Vireo** and other species that use the threatened habitat. *Kern County, California; March 2004. © Brian E. Small.*

How will SOD affect bird species that depend on the oaks, particularly for acorns or nesting cavities? William B. Monahan and Walter D. Koenig recently used a statistical approach to estimate potential impacts. Their analysis, published in 2006, focused on Acorn Woodpecker, Nuttall's Woodpecker, Hutton's Vireo, Western Scrub-Jay, and Oak Titmouse (*Biological Conservation* 127:146–157). By matching Christmas Bird Count and Breeding Bird Survey data to areas of oak habitat mapped by the California Gap Analysis, the authors modeled current and potential future population status for the five species in woodlands of coast live oak (*Quercus agrifolia*).

The results are sobering. In those areas, the model projects declines greater than 50 percent for the two woodpecker species and the titmouse and decreases greater than 25 percent for the vireo and the scrub-jay. When the losses are compared to total populations of these species in the state, the titmouse fares worst. Its decrease in coast live oak woodlands alone would represent 10 percent of the entire California population.

Monahan and Koenig listed many unpredictable factors that could either mitigate or strengthen the ultimate impact of SOD on birds—for example, how much farther it will spread. Three analytical methods relating the pathogen's distribution to climatic variables produced greatly differing projections. Two suggest that SOD will remain mainly in presently infected areas; the third projects possible sweeps throughout northwestern California and parts of the Sierra Nevada. Reviewing the biology, ecology, and management of SOD in 2003, David M. Rizzo and Matteo Garbelotto concluded that the disease is too well established to be eliminated from its present range and that preventing its spread should be a high priority (*Frontiers in Ecology and the Environment* 1:197–204). Thus far, researchers have found no pesticide effective at a large-scale landscape level.

Many efforts are under way to save the oaks. California's Oak Woodland Conservation Act provides funds for protection and conservation. California Partners in Flight developed an extensive Oak Woodland Bird Conservation Plan to guide conservation policy and action. The California Oak Foundation has distributed 1,000 copies of the plan to local agencies and land owners (crucial because 85 percent of oak woodland habitat is privately owned). The California Oak Mortality Task Force and the Wildlife Conservation Society are coordinating studies of the SOD pathogen, possible means of control, and ecological effects. In the words of the Partners in Flight plan, Sudden Oak Death "represents a very urgent crisis indeed".

Ovenbirds Nesting in Unusual Habitat

The Ovenbird is a classic forest-interior songbird—a poster species for campaigns to protect large woodlands from fragmentation. But at one area in Pennsylvania, Eugene S. Morton has found a striking exception to Ovenbirds' usual breeding habitat. He remarked with emphatic irony in 2005 that if the species were studied only at that location, its normal habitat and behavior would be described as "forest edge; avoids mature interior forest!" (*Wilson Bulletin* 117:327–335). On a 150-hectare research site in northwestern Pennsylvania, Morton found Ovenbirds nesting exclusively in edge habitats, ignoring the forest interior nearby.

The birds' territories bordered roads, abandoned farm fields, and a large clearing adjacent to a clear-cut in the forest. These unusual preferences were not a temporary aberration. Studying the species intensively at the site from 1971 through 2003, Morton did not find a single male with a forest territory during the entire 33-year period. He played Ovenbird songs within the woods, thinking that these might convince prospective breeders that the habitat was attractive. The songs failed to attract any. Occasionally, Morton did see Ovenbirds in the playback area, but none sang or remained. Instead, birds returning in the spring reoccupied their traditional territories at the edge.

What led these birds to prefer the atypical habitat? Was something wrong with the forest interior? Perhaps food was more abundant at the edge than in the interior. Food abundance for Ovenbirds is known to correlate positively with the depth of vegetational litter on the ground (the more litter, the more prey). However, litter depth was significantly lower in the Ovenbirds' territories than in the interior—thus, food was presumably less abundant at the edge. If food was not a factor, what about predation? This is always a crucial problem for ground-nesting species, and perhaps Ovenbirds avoided the forest because nest predators were more abundant there. Indeed, Morton found that chipmunks, well-known predators upon ground-nesters' eggs, nestlings, and fledglings, were abundant in the interior but were nearly absent from the Ovenbirds' territories at the edge. Damp soil on the territories, because of poor drainage from springs, may have made the ground unsuitable for chipmunks' burrows.

To find a nesting **Ovenbird** we must seek it in a forest interior, right? Normally that is the case, but Ovenbirds have bred at the forest edge and ignored the interior at a site in Pennsylvania. One explanation for the odd behavior is that their nests are safer from predation by chipmunks at the edge. *Adirondack Mountains, New York; summer 1997. © Tom Vezo / VIREO.*

To confirm the dominant role of predation, Morton recommends a two-part experiment: first, remove chipmunks from the interior and then try to attract Ovenbirds with song playbacks; second, using food as bait, entice chipmunks to invade the traditional edge territories and then determine whether the Ovenbirds would no longer settle there. Whatever the reason for the unusual nesting behavior, Morton says it points to the wisdom of a commentary by Marc-André Villard in 1998 (*Auk* 115:801–805). Villard had cautioned that labeling birds too generally and dogmatically as "forest interior" species could limit understanding of their full habitat requirements.