Dowitcher Identification

Jon L. Dunn



Photos by Larry Sansone and Jon L. Dunn



Introduction

Genus *Limnodromus* (Wied 1833) comprised of 3 species within family of Scolopacidae (Sandpipers). Prior to *Limnodromus* it was known as *Macrorhamphus* (Leach=T. Forester). The change to *Limnodromus* came with the 17th Supplement to the AOU checklist (1920).

- From Wikipedia the genus name is ancient Greek limne meaning marsh and dromus meaning racers, so these species are marsh racers. The English name is from Iroquois.
 - An alternative view to the term dowitcher being derived from the Iroquois word from the BNA account for Short-billed Dowitcher by Jehl et al. (2001):
 - The supplanting by "dowitcher" seems to have been driven by Atlantic coast usage during the peak of the hunting era. Poynting (1895-1896) implied that the name was common on Long Island - a stronghold for Dutch and German immigrants. Coues (1903:808) wrote that 'dowitcher' or 'dowitch' is derived from 'Dutscher' or 'dowitch' is derived from 'Deutscher' or 'Duitsch," which referred to the 'German' or 'Dutch' snipe, indistinction to 'English Snipe (= *Gallinago gallinago* Common Snipe).
- Asian Dowitcher known only from eastern portions of Old World
 - I unrecorded for North America, although could potentially occur in western Alaska.
- Short-billed and Long-billed Dowitcher are primarily New World species.







History of Dowitcher Taxonomy

¹Until 1957, two North American species were known as a single polytypic species, Dowitcher.

- However, Rowan (1932) said that he suspected that *two* species of dowitchers were involved in the paper where he described a new subspecies of Short-billed Dowitcher *hendersoni*.
- Pitelka (1950), analyzed ~2900 specimens (many collected by ornithologist, Rollo Beck), and clearly established that Long-billed and Short-billed were different species.
 - Pitelka also (1950) described new western subspecies of Short-billed,
 L.g.caurinus, and that cleared up some of past confusion since Short-billed is a highly variable species.

^IMore recent genetic studies show sharp divergence between two species, separation between them estimated at ~ four million years ago (Avise and Zink 1988).

¹The AOU (1957) followed Pitelka's (1950) recommendations for the 5th edition of AOU Checklist.



Frank Pitelka 1916-2003

Currently Recognized Dowitchers of *Limnodromus* **Asian Dowitcher**

Limnodromus semipalmatus

- Described by Blyth, 1848
- **Type Location** Calcutta, India
- Threatened east Asian species, not recorded in North America.
- Breeds in Siberia and Mongolia; winters from east India to Thailand and south to Indonesia, especially Sumatra.
- Regular **migrant** in coastal China; few recorded regularly in Japan.



Asian Dowitcher *Limnodromus semipalmatus*

Very large dowitcher with a very long straight bill and strong vertical dark streaks on the back.

Lacks the white stripe up the back which is a characteristic of both Short and Long-billed Dowitchers.

More likely to be confused with a godwit (particularly Bar-tailed) than a North American dowitcher.



Short-billed Dowitcher

Polytypic species with **3 recognized subspecies** that differ most in their alternate plumage.

- Limnodromus griseus griseus (the smallest ssp.)
 - Limnodromus griseus hendersoni
- Limnodromus griseus caurinus (the largest ssp.)

Breeding: All 3 species breed in sedge-sphagnum moss bogs between 50-55 degrees north latitude and are strictly confined in winter to coastal regions from North and South America.

Joseph R. Jehl, Jr. and others stated this species has one of hardest nests to locate. Despite much effort, the nest of nominate griseus was not found until 1977.





Short-billed Dowitcher

Limnodromus griseus griseus

Described by Gmelin 1789. Type location: Long Island, New York.

Breeds primarily in Quebec and extreme western Labrador, and probably James Bay.

Intergrades with *hendersoni* along shore of western James and Hudson Bays west to perhaps Churchill, Manitoba.

There is a photographed record at Churchill by Doug McRae in the breeding season of a mixed pair (*griseus* and *hendersoni*)

Winters eastern Caribbean region and to coast of Brazil.

Migrates up Atlantic Coast to breeding grounds. Some migrate up through eastern Great Lakes region. Spring migration a little later than *hendersoni* in spring, a little earlier in fall (Jaramillo et al. 1991).

^IShort-billed Dowitcher (presumably *griseus* or *hendersoni*) is **accidental** to northwestern Europe.





Birders Journal

A. Jaramillo, R. Pittaway, P. Burke vol 1, no 1 October 1991

Top and middle right: Two bright individuals of SBDO of the nominate ssp. *griseus*.

- The top individual is a fresh bird; early April to mid-May.
- The middle right hand bird is a slightly worn individual; early June to early July.

Middle left and bottom: Two SBDO intermediate between the *griseus* and the *hendersoni* sspp., depicting some of the range in plumage.

- Middle left shows an individual in late-May through mid-June.
- Bottom early-April through mid-May.



Top and middle right: Two bright individuals of Short-billed Dowitcher *Limnodromus griseus* of the nominate subspecies *griseus*. The top individual is a fresh bird; early April to mid-May. The middle right hand bird is a slightly worn individual; early June to early-July.

Middle left and bottom: Two Short-billed Dowitcher L. griseus intermediate between the griseus and hendersoni subspecies, depicting some of the range in plumage. Middle left shows an individual in late-May through mid-June and bottom early-April through mid-May.

Birders Journal Volume One Number One October 1991

Short-billed Dowitcher

Limnodromus griseus hendersoni

Described by Rowan 1932. Type Location: Devil's Lake, Alberta.

Breeds east-central British Columbia (possibly Peace River Parklands), northern Alberta, northern Saskatchewan, and northwestern Manitoba, possibly to northwestern Ontario.



Intergrades with *griseus* along Hudson Bay shore in northern Ontario and west to an unknown degree to or near Churchill, Manitoba.

First nest was found in 1906 in northern Alberta, now determined to lie within the range of this subspecies.

Winters strictly on coast from mid-Atlantic and Gulf States, and south to South America.

Migrates in spring along Atlantic Coast north to about New Jersey, a few to New England, and then through Great Lakes region (west to central Great Plains). Others migrate from Gulf Coast up through Midwest.



Short-billed Dowitcher

Limnodromus griseus caurinus

Described by Pitelka 1950. Type location: Yakutat, Alaska.

Breeds from southern Alaska west to about Nushagak Bay, southwest Alaska, and south to northwestern British Columbia and the southern Yukon.

- Interior breeding population in southern Yukon and very small numbers in muskeg bogs along Denali Highway, Alaska, are presumed to be *caurinus*, but there are no specimens, so could conceivably represent a western extension of *hendersoni*.
 - In the southern Yukon Territory nesting confirmed at Swan Lake and Lake LeBarge - "was that night on the marge of Lake LeBarge I cremated Sam McGee." From the "Cremation of Sam McGee" (1907) by Robert W. Service, "the Bard of the Yukon"

Winters south along Pacific Coast in large coastal estuaries from San Francisco Bay (a few in Humboldt Bay) south to northwest South America.

Very rare along coast in winter away from large coastal estuaries.





SBDO *Limnodromus griseus caurinus*

Pitelka (1950) in his type description of newly described subspecies said: compared to *hendersoni, caurinus* more heavily and densely spotted and more white ventrally; compared to *griseus*, more varied in ventral coloration (since color of variants of '*hendersoni'* type occur in *caurinus* not so heavily spotted nor so white ventrally." He also said it was intermediate in ground color but closer to *griseus* in markings on the underparts.

Short-billed Dowitcher

Limnodromus griseus caurinus

Migrates in spring north along Pacific Coast and in smaller numbers inland in California and westernmost Great Basin.

- Spring migration period is very confined from early April (2nd week) to late April, but far fewer into May. Coastal migrants start moving in March, a few even from the first week of March.
- **Fall migration**
 - mainly coastal, adults from early July to mid-August, juveniles early August through September, some to mid-October.
 - *inland* is comprised mainly of **juveniles** from early August. Adults seem fairly rare (July to mid-August).

Occurs casually north to the Seward Peninsula and to Pribilof Islands in Bering Sea, unrecorded for Asia.

Orange = breeding range Purple = year round Blue = winter range Gold = migration range spring and fall Green = migration spring Yellow - migration fall







Identification: Short-billed (all sspp.)

- Behavior
 - The three species of Dowitchers feed like a sewing machine or drill.
- **Structure**
 - Shorter legs
 - When Short-billed and Long-billed are together leg length difference can be useful.
 - **Shorter bill** on average, but overlap.
 - Bill length can only be used as a character for a longer billed female Long-billed.
 - Longer primary extension.
 - **Red Knot-like appearance.**
 - Feeding
 - In general, Short-billed feeds in shallower water, routinely along shores.



Short-billed Dowitchers *caurinus* 28 May 2020 Ventura, CA

Limnodromus scolpaceus

Described by Say 1823 Type location: Council Bluffs, Iowa.

- Treated as a subspecies of Short-billed until 5th edition of AOU Checklist.
- Split was based on Pitelka's (1950) paper
 - suspicions that there were two species date back to at a least a few decades prior (e.g. Rowan 1932).
 - Hoffmann's (1927) account mentions that when LBDO fly off they give "a throaty kéekery, so Hoffmann knew about calls of this type even earlier.



- **Breeds** from western Alaska, perhaps south to Goodnews Bay (not far from northern extent of *caurinus* Short-billed), northern Alaska, and east to northern Yukon and Mackenzie, N.W.T., Canada (perhaps to Anderson River mouth and Franklin Bay).
 - Also nests in northern portions of Russian Far East from Chukotka and Anadyr Land and across Arctic Coast, to Taimyr Peninsula of Siberia (also Wrangell Island), several thousand miles west of the Seward Peninsula, and comparable to range (in Russia) of Pectoral Sandpiper.
 - Winters mainly in coastal regions of U.S., south to Middle America, but also found inland to an appreciable distance from coast and very small numbers winter in West Indies.



Orange = breeding range Purple = year round Blue = winter range Gold = migration range spring and fall Green = migration spring Yellow - migration fall

Limnodromus scolpaceus

- Migrates in numbers throughout West and through Great Plains. Much scarcer and more local in East as a migrant.
 - Spring migration. In West starts **earlier** and **extends** later than Short-billed.
 - March to mid-May
 - It is still numerous through first half of May in California, where Short-billed is scarce in May.
 - Fall migration. Small numbers of adults have arrived by mid-July. Juveniles typically don't arrive in CA until September, usually after Labor Day.



Orange = breeding range Purple = year round Blue = winter range Gold = migration range spring and fall Green = migration spring Yellow - migration fall

Limnodromus scolpaceus

Strays routinely in Western Palearctic.

- Many records in eastern Asia, as far south as Indonesia; strays sometimes in multiples.
 - ^I But not surprising, as like Pectoral Sandpiper it breeds west in Russia to Taimyr Peninsula.
 - (distance of ~2,500 miles)
- A non Asian Dowitcher seen in Old World is much, much more likely a Long-billed than a Short-billed.

Juvenile LBDO Feather Topography at Rest



New first basic lower outer scapular feather

Lesser secondary coverts

Plumages of SBDO

Juvenile

- Easiest plumage to sort out
- Tertials and inner greater secondary coverts
 - all differences emphasize prominent orange-rust or buffy internal markings on tertials and inner greater secondary coverts. These can be loops or crossbars.

Tail

- Short-billed has a *paler* tail than Long-billed, but pattern often hard to discern, let alone separate upper tail-coverts from actual tail feathers, AND it is geographically variable.
- Only *hendersoni* Short-billed has a distinctly paler tail.

Sides of breast

This is an important feature in all plumages. Round dark spots on Short-billed are present to one degree another. Get used to carefully looking at the sides of the breast.





Inner greater secondary coverts Tertials



Primary tip

Juvenal Plumage

- Long-billed has just buffy or whitish-buff edges with only limited and faint internal markings on tertials and inner greater secondary coverts.
 - **Scapular pattern** differs too, more internal marks on Short-billed but scapulars are harder to see pattern.
- Short-billed is a richer buff on breast, with more obvious blackish spots on sides of breast, mirroring alternate plumage.



Long-billed 17 September Ventura, CA 2011





LBDO 17 September Ventura, CA 2011



Juvenal Plumage

Some juvenile LBDO are bright like SBDO but compare diagnostic tertials and inner greater secondary coverts.



Short-billed 11 August 2016 Ventura, CA



Long-billed 17 September 2010 Ventura, CA

LBDO Bright Juvenile



Juvenile LBDO Feather Topography at Rest

Inner scapulars Mantle Outer scapulars Tertials Primary tips Tail extension past primary tips Inner greater secondary coverts Median secondary coverts CLarry Sansone

New first basic lower outer scapular feather

Lesser secondary coverts

Feather Topography of LBDO



Long-billed & Short-billed Dowitchers in Flight



LBDO 4 May 2008 Ventura, CA

SBDO 3 May 2016 Crowley Lake, CA

Short-billed Dowitchers



Photo by JLD 18 April 2020 at Owens Lake, CA

Fresh Alternate (Breeding) Plumage

Much more confusing than juvenal plumage, due to significant geographical variation in plumage of among sspp. of Short-billed.

In fresh alternate plumage

Long-billed

- Deep cinnamon below with extensive horizontal markings, sides of breast have horizontal bars with fewer spots.
- Above plumage is blackish with dark chestnut and white scapular tips.

Long-billed 6 April 17, Ventura, CA



LBDOs Fresh Alternate Plumage



3 May 2016 Crowley Lake, CA

Birders Journal

A. Jaramillo, R. Pittaway, P. Burke vol 1, no 1 October 1991

Top: Worn breeding plumaged LBDO before July to mid-August

Middle: Fresh LBDO, early April to mid-May

Bottom left & right: Two typical SBDO of the *hendersoni* sspp. Showing variation in underparts.

On left: a fresh bird with spotted breast.

On right: a fresh bird with unspotted breast.



Top: Worn breeding plumaged Long-billed Dowitcher Limnodromus scolopaceus, before July to mid-August.

Middle: Fresh Long-billed Dowitcher L. scolopaceus early April to mid-May.

Bottom left and right: Two typical Short-billed Dowitchers *Limnodromus griseus* of the *hendersoni* subspecies, showing variation in underparts. On the left, a fresh bird with spotted breast. On the right, a fresh bird with an unspotted breast.

Birders Journal

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Top and middle right: Two bright individuals of SBDO of the nominate sspp. *griseus*.

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Birders Journal Volume One Number One October 1991

Alternate (Breeding) Plumage

In fresh alternate plumage

Short-billed

variable as noted depending on the subspecies. In general, colored markings above are buffier, less chestnut, and white edges to scapulars are less apparent, upperparts are brighter on Short-billed, especially in *hendersoni*. Below, underparts are heavily (*griseus* and many *caurinus*) marked to only lightly spotted (*hendersoni*).

The key is that sides of breast are spotted, not barred.

- Distinctive from Long-billed is white belly of *griseus*. The belly is mostly colored on *hendersoni*. Western *caurinus*, largest subspecies of Short-billed, is variable, sometimes, more frequently looks more like *griseus*, but some look like *hendersoni*.
- Long-billed in fresh alternate plumage is colored more like *hendersoni* below, though the darker markings below are more numerous and differently shaped.
- All subspecies of Short-billed, but certainly *caurinus*, seem darker capped than Long-billed.

Alternate (Breeding) Plumage SBD0 Three sspp.

griseus 8 June Port Mahon, DE



caurinus 16 April 2015, Orange Co,



hendersoni 19 April 2002 Bolivar Flats, Tx



caurinus 6 May 2009, Ventura, CA



caurinus 1 May 2011, Ventura, CA



SBDOs *caurinus* **Fresh Alternate Plumage** 18 April 2020 Owens Lake



SBDOs *caurinus* **Fresh Alternate Plumage 18 April 2020 Owens Lake**


Comparison of *caurinus* **SBDO** with LBDO in Fresh Alternate

caurinus 16 April 2015, Orange Co, CA Long-billed 6 April 17, Ventura, CA



What to do about mixed flocks?



Find Waldo

There is one breeding plumage SBDO with many LBDO



Photo by JLD 18 April 2020 Crowley Lake, CA

Find Waldo

There is one breeding plumage SBDO with many LBDO



Photo by JLD 18 April 2020 Crowley Lake, CA

SBDO *caurinus* center with LBDOs 3 May 2016 Crowley Lake, CA



SBDO *caurinus* upper left with LBDOs **3 May 2016 Crowley Lake, CA**



SBDO *caurinus* center with LBDOs **3 May 2016 Crowley Lake, CA**



SBDO *caurinus* 3 May 2016 Crowley Lake, CA



LBDO Alternate (Breeding) Plumage

In worn summer plumage (e.g. arrivals in July), colors fade.

Long-billed

- Still rich cinnamon-buff below.
- Since markings are closer to tip of feather on underparts, many of those marks are gone.
- White scapular fringes are also largely gone.
- *Long-billed* is unusual in sense of how variable timing is when basic (winter) plumage is acquired.
 - Some are dull by late August; others seem to be in full alternate plumage well into October.
 - Find a large flock of Long-billed Dowitcher in September and notice how variable appearance is of adults.



Long-billed 6 August 2016 Ventura, CA

LBDO Worn Alternate & Molting Adults in Fall

Long-billed 23 July 2012 Ventura, CA



Long-billed 10 Sept 2016 Ventura, CA



SBDO Alternate (Breeding) Plumage

In worn summer plumage (e.g. arrivals in July), colors fade.

Short-billed

- neck and breast is paler.
- dark markings below are not at tips, so even with wear, round dark spots on sides of breast are still apparent (Wilds and Newlon 1983).

Short-billed 28 May 2020, Ventura, CA



LBDO Basic (Winter Plumage)

The most difficult plumage

Long-billed

Clearly darker gray, almost grayish brown, than any subspecies of Shortbilled and notably is unspotted on the dark neck and breast.

Long-billed 20 October 1988 Ventura, CA



Long-billed 2 March 2013 Ventura, CA



Long-billed 14 Feb 2010 Ventura, CA



SBDO Basic (Winter Plumage)

The most difficult plumage

Short-billed

- gray color is paler, and on neck and breast, there is evident dark breast spotting on neck and breast when viewed at close range.
- paler tail can be helpful on Shortbilled as are, of course, different vocalizations.

Short-billed 28 May 2020 Ventura, Ca Four, except lower left, are in first alternate plumage. (Similar to basic plumage).



Winter Plumage: Best Field Mark is Knowing Where You Are!

Short-billed

In winter is only in large salt water coastal estuaries with mudflats and places to roost.

Long-billed

 If you are away from one of these estuaries, or if you are at all inland, you are looking at a Long-billed Dowitcher, no matter how you may have interpreted the subtle field marks!



Molt - With Dowitchers vitally important!

Long-billed adults

Arrive by mid-July.

In interior settle into molting areas and goes through a complete molt to basic plumage.

¹Missing flight feathers can easily be noticed in flight.

Large water bodies is where these birds gather, sometimes in hundreds. They stay for weeks until the molt is complete. They may try to winter, but obviously no Long-billed winters in northern Plains states where these birds spend an extended period in late summer and early fall.

Long-billed molting juvenile 9 October 2005 Ventura, CA



Long-billed Juveniles

Often molting already upon arrival in California in September.

Molt - With Dowitchers vitally important!

Short-billed adults

Do not molt during migration.

^IPushes on to winter grounds.

Adults in migration are in alternate plumage. Indications of a mixed plumage (alternate or juvenal feathers mixed with basic feathers) is a good indication of Long-billed, unless you are at, or near, a location where Short-billed winters.

Short-billed juveniles

^IAre in full juvenal plumage.

Arrive and migrate in full juvenal plumage, until they reach or near their wintering grounds. Short-billed juveniles 8 Sept 2018, Ventura, CA



Molt - With Dowitchers vitally important!

Molting Short-billed juvenile 8 Sept 2018, Ventura, CA



Fall timing of migration for adult & juvenile - SBDO

Adult Short-billed

- **arrive** in coastal California in early July.
 - ^[] fewer adults in fall than spring in interior of state.
 - ^I migrate through July and into early August, a few until mid-August, but not later.

Juvenile Short-billed

- **arrive** during the first week of August and peak in late August and into early September.
 - gradual tailing off through September with a few through first week of October. Very rare after that time.
 - very few records of juveniles from interior locations into fourth week of October (e.g. a small pond in Antelope Valley, Kern County).

Fall timing of migration - adult & juvenile LBDO

- **Long-billed adults**
 - Arrive in mid-July
- **Long-billed juveniles**

Rare in CA until September, usually first ones after Labor Day weekend. Very few recorded during last week of August; perhaps more regular then in western Canadian border states.

Vocalizations

Short-billed

- More silent, seldom calling from ground.
- Notes are generally heard a mellow, but rapid *tu-tu-tu* given in a clipped manner.

Long-billed

- gives a classic high *keek*.
- given frequently in flight and frequently at rest, or flocks feeding giving soft frequent twittering *keek* notes, and when flushed one hears a cacophony of *keeks*.
- ¹ Note the one burst of song. This song is similar in SBDO.

Complex song shared by SBDO and LBDO

Miller et al. (1984) do indicate that the songs are similar in terms of hierarchical organization and characteristics of buzzy elements. The major differences for Long-billed include doublets versus single elements at comparable positions in song; lower versus higher number of buzzy elements; and weakly developed versus strong amplitude modulation in type C elements.



Short-billed Dowitcher





A Word on Vocalizations

A Silent Dowitcher...

- Is a Short-billed candidate, particularly if flushed and it doesn't call.
 - However, this does *not* substantiate a significant record of a Shortbilled.
- Both species give a complex song which at least in Long-billed is given year-round, but likely in both species.
 - This song is particularly given on the breeding grounds but is heard year-round especially when the birds are in flocks.

RULES TO LEARN AND LIVE BY

ALWAYS FIRST CONSIDER <u>WHERE</u> YOU ARE LOOKING AT YOUR DOWITCHER AND <u>WHEN</u> YOU SEE YOUR DOWITCHER, THEN CONSIDER THE PLUMAGE.

Long-billed Dowitcher

- Any dowitcher during winter period away from a large coastal estuary (e.g. San Francisco Bay, Morro Bay, Newport Bay, and San Diego Bay) is very likely a **Long-billed.**
- Any dowitcher after October, likely early October, and away from coast **IS** a **Long-billed**.
- Any molting dowitcher away from known wintering areas for Short-billed is likely a **Long**billed.
- Any adult dowitcher away from a location where Short-billed winters after mid-August is a **Long-billed.**
- Dowitchers seen after the first few days in May, especially away from large coastal estuaries where some immature Short-bills summer, are likely Long-billeds.

Short-billed Dowitcher

Any dowitcher in juvenal plumage in August is very likely a **Short-billed**, if before final week, almost certainly a **Short-billed**.

Plate from page 145.

National Geographic Society's *Field Guide to the Birds of North America.*



Final Thoughts on Dowitchers

- Small to moderate numbers of second calendar year Short-billed Dowitchers summer on the winter grounds in a basic like plumage.
 - This does not appear to be the case with Long-billed where "summer records" are few, and they typically involve alternate plumaged birds on the move.



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Thank you

- Larry Sansone Rob Fowler
 - Daniel D. Gibson

Thank you Jon & Larry Sansone for photos





Questions?

Please type your questions into the Q and A.

