

# Recognizable Forms

## Subspecies of the Palm Warbler

by  
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### Introduction

W. Earl Godfrey (1986) in *The Birds of Canada* says about the Palm Warbler (*Dendroica palmarum*), "There are two subspecies, one eastern, one western, different enough to be recognizable in the field". The two subspecies (races) of the Palm Warbler are illustrated by Peter Burke in Figure 1. See also Plate 7 in Curson et al. (1994), page 369 in the National Geographic Guide (Scott 1987), pages 287 and 295 in the Golden Guide (Robbins et al. 1983) and page 239 in Peterson (1980). In the following account I discuss the identification, distribution, migration times and routes, winter ranges, and status of the two subspecies of the Palm Warbler in Ontario.

### Taxonomy

The American Ornithologists' Union Check-list (1957) and Godfrey (1986) list two subspecies of the Palm Warbler: the nominate "Western" subspecies *D. p. palmarum* and the eastern "Yellow" subspecies *D. p. hypochrysea*. The two subspecies differ in so many ways that Todd (1963) stated "I strongly suspect that we are dealing with two closely allied but separate species". Todd's opinion (before intergradation was well-established) serves to demonstrate the distinctiveness of the two subspecies. See also discussion under Intergrades.

### Plumages, Molts, Ageing and Sexing

The sexes are similar in all ages and plumages. The briefly held juvenile (juvinal) plumage is seen only on the breeding grounds. Juveniles undergo a partial molt to first winter (first basic) plumage before fall migration. First winter birds begin their partial molt in mid-winter to first summer (first alternate) plumage, and they breed in this plumage. Adult winter (definitive basic) birds also begin acquiring adult breeding (definitive alternate) plumage in mid-winter. First summer and adult breeding plumages are very similar in appearance. Because these birds usually cannot be aged in the field, it is best to refer to them collectively as being in breeding (alternate) plumage. After breeding but before fall migration, both first summer and adult breeding birds undergo a complete molt to adult winter plumage. Autumn migrants consist of birds in first winter and adult winter plumages. These plumages are often best treated collectively as winter or basic plumage.

### Western Palm Warbler (*D. p. palmarum*)

The Western Palm Warbler breeds in "western and central Canada east to Moosonee and Kapuskasing, Ontario" (Godfrey 1986). It is a common

migrant in southern Ontario (James 1991). For the Oshawa-Lake Scugog area, Tozer and Richards (1974) say the (Western) Palm Warbler is "A fairly common spring and fall transient (early May to mid-May: mid-September to early October) ... but in low numbers".

Most Western Palm Warblers in breeding (alternate) plumage are easily distinguished from Yellow Palm Warblers (with entire underparts yellow) by their whitish or only faintly yellowish bellies which contrast with the rest of the underparts (Figure 1). See also the photograph of a Western Palm in breeding plumage on page 155 in Volume 3 of the Master Guide (Farrand 1983). Western Palms in winter (basic) plumage are much duller than Yellow Palms; the yellow undertail coverts contrast with the whitish (or tinged yellow) underparts of adults or the buffy white underparts in fresh first winter birds. By learning the plumage variation in the Western Palm Warbler you will be prepared to find the much rarer Yellow Palm Warbler in Ontario.

### Yellow Palm Warbler

(*D. p. hypochrysea*)

The subspecies name *hypochrysea* means "golden beneath" (Bent 1953). The Yellow Palm Warbler breeds in "eastern Canada west to Lake Mistassini, Quebec and Ottawa, Ontario" (Godfrey 1986). The Ottawa (Mer Bleue Bog) population is apparently extirpated (Earl Godfrey, pers. comm.). However, a few may still breed in other large bogs of eastern Ontario. Don Sutherland (pers. comm.) observed a singing male Yellow Palm Warbler in suitable breeding habitat in Stormont

County on 23 June 1984. The Yellow Palm is a rare migrant in southern Ontario west to Point Pelee (James 1991). For example, they have been recorded at Ottawa, Kingston, Toronto, Hamilton and Long Point.

Yellow Palm Warblers tend to migrate earlier in spring and later in fall than Western Palms (Dunn 1994). A Palm Warbler in southern Ontario in mid to late April or after mid-October could be a Yellow Palm!

Typical Yellow Palm Warblers in breeding (alternate) plumage are easily told from Western Palms by their entirely yellow underparts (Figure 1). See also the excellent photograph on page 992 in Terres (1982). In addition, Yellow Palms have broad chestnut or reddish streaking on the underparts, whereas Western Palms have finer dark brown streaking. Yellow Palms also have more greenish-olive upperparts than Western Palms. In winter (basic) plumage, most Yellow Palms can be separated from Western Palms by their much yellower underparts (Godfrey 1986) and usually yellowish instead of whitish superciliary line (Bent 1953). See the illustration comparing both subspecies in basic plumage on page 295 in the Golden Guide (Robbins et al. 1983).

### Intergrades

The zone of intergradation between the two subspecies of the Palm Warbler is relatively narrow. For example, the breeding birds from Moosonee and Kapuskasing, Ontario, are *palmarum* (Godfrey 1986); whereas birds from Lake Mistassini, Quebec, and eastern Ontario (Ottawa) are *hypochrysea* (Godfrey 1949, 1986). However, breeding birds (five specimens) from Amos, Quebec

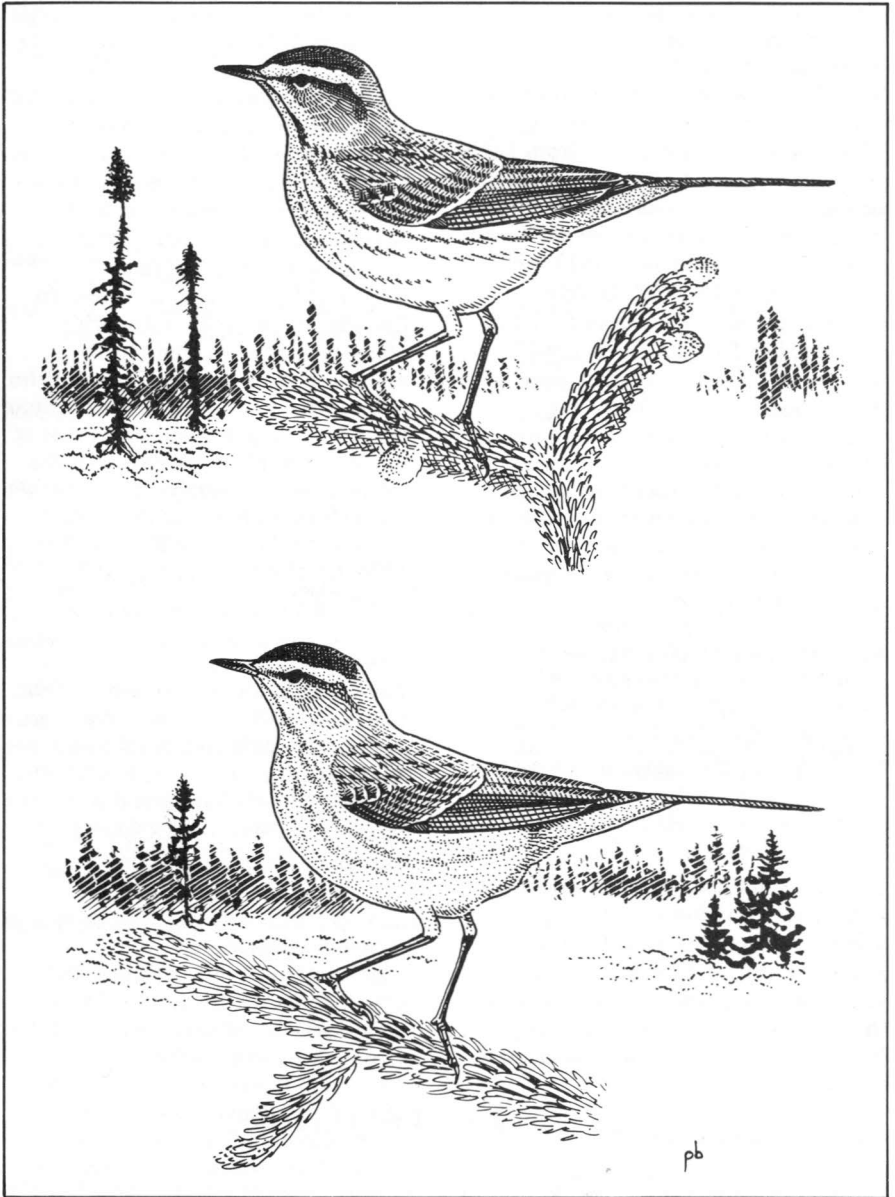


Figure 1: Top: Western Palm Warbler in breeding plumage (sexes similar).  
Bottom: Yellow Palm Warbler in breeding plumage (sexes similar).  
Drawing by *Peter Burke*.

(about 140 km east of the Ontario border) are "almost exactly intermediate between the two races and show that the Amos region is an area of intergradation" (Godfrey 1968). Note that specimens from Lake St. John, Quebec and Ottawa, Ontario are referable to *hypochrysea* but show slight intergradation toward *palmarum* (Rand 1944, Rand 1948, Godfrey and Wilk 1948, Todd 1963). In reference to six specimens from Lake St. John, Quebec, Godfrey and Wilk (1948) state they "differ somewhat from *hypochrysea* from the Maritime Provinces in the extent and intensity of the yellow coloration of the underparts. In the two females the yellow ventral coloration is dull and restricted, and in one is almost lacking on the abdomen and flanks. This specimen is practically inseparable from *palmarum* from Manitoba and Alberta, except for its more olivaceous upper parts. The series as a whole, however, is unquestionably closer to *hypochrysea*". The above locations are clearly shown on the map inside the hard cover of *The Birds of Canada* (Godfrey 1986).

As a final note, there is also some individual variation in both subspecies in that a bright Western Palm or a dull Yellow Palm might be called an intergrade or confused with the other subspecies (Earl Godfrey, Ross James and Don Sutherland, pers. comms.).

### Migration and Winter

The Western Palm Warbler and the Yellow Palm Warbler winter in different areas and there is a curious crisscrossing of migration routes. The Yellow Palm spends the winter in the Gulf States mostly west of Florida to

Louisiana, and in spring crosses the southern Appalachian Mountains to migrate northward east of the mountains to northern New England and eastern Canada. The Western Palm, leaving its winter home in Florida and the West Indies, crosses the southern Appalachians in the opposite direction usually south of the Carolinas, and migrates northward to Ontario and western Canada. In fall, both subspecies crisscross again en route to the wintering grounds. The Yellow Palm follows the reverse of its spring route. However, the fall migration route of the Western Palm Warbler is more easterly and it usually outnumbers the Yellow Palm along the Atlantic Coast at this time (Bent 1953, Bull 1974, Griscom and Sprunt 1979, Dunn 1994).

### Summary

Typical individuals of Western Palm Warbler and Yellow Palm Warbler, particularly in breeding plumage, are easily distinguished in the field. The Western Palm Warbler is the common subspecies in Ontario. Intergrades are uncommon.

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