

## **APPENDIX B**

### **LIST OF BENTHIC AND EPIBENTHIC INVERTEBRATE SPECIES COLLECTED IN 1980 IN THE INJURY STUDY AREA (MODIFIED FROM DAMES & MOORE, 1981)**

## BENTHIC INVERTEBRATES

### COELENTERATA

### HYDROZOA

Hydroida (polyp)

### SCYPHOZOA

Schphozoan medusae

### RHYNCHOCOELA

### PLATYHELMINTHES

### TURBELLARIA

Polycladida

### NEMATODA

### ANNELIDA

### POLYCHAETA

Ampharetidae

*Amphicteis sp.*

Arenicolidae sp.

Capitellidae

*Barantolla americana*

*Capitella capitata*

Cirratulidae sp.

*Chaetozone setosa*

*Cauleriella alata*

*Cirratulus cirratus*

*Cirratulus spectabilis*

*Tharyx sp.*

*Tharyx secundus*

Cossuridae

*Cossura Soyeri*

Dorvilleidae

*Dorvillea annulata*

Glyceridae sp.

*Glycera sp.*

*Glycera americana*

*Glycera capitata*

Goniadidae

*Glycinde picta*

Hesionidae

*Gyptis brevipalpa*

*Micropodarke dubia*

*Ophiodromus pugettensis*

Lumbrineridae sp.

*Lumbrineris sp.*

*Lumbrineris luti*

*Lumbrineris pallida*

*Lumbrineris zonata*

Magelonidae

*Magelona japonica*

Maldanidae sp.

Nephtyidae

*Nephtys cornuta franciscana*

*Nephtys ferruginea*

Nereidae sp.

*Nereis sp.*

*Nereis procerca*

*Platynereis bicanaliculata*

Onuphidae

*Diopatra ornata*

Opheliidae sp.

*Armandia brevis*

*Ophelina acuminata*

Orbiniidae sp.

*Scoloplos acmeceps*

Oweniidae sp.

Pectinariidae

*Pectinaria granulata*

Phyllodocidae

*Eteone longa*

*Eulalia sanguinea*  
*Phyllodoce sp.*  
*Phyllodoce groenlandica*  
*Phyllodoce maculata*

Polynoidae sp.

*Harmothoe lunata*  
*Lepidonotus squamatus*

Sabellidae

*Chone dunerii*  
*Manayunkia aestuarina*

Sigalionidae

*Pholoe minuata*

Spionidae sp.

*Polydora sp.*  
*Polydora brachycephala*  
*Polydora kempii japonica*  
*Polydora ligni*  
*Polydora proboscidea*  
*Polydora pugettensis*  
*Prionospio cirrifera*  
*Prionospio steenstrupi*  
*Pygospio elegans*  
*Sireblospio benedicti*

Syllidae sp.

*Exogone sp.*  
*Sphaerosyllis brandhorsti*  
*Syllis heterochaeta*  
*Syllis hyalina*

Terebellidae sp.

*Polycirrus sp.*

OLIGOCHAETA

MOLLUSCA

GASTROPODA

Acmaeidae

*Collisella sp.*

*Mitrella sp.*

*Polinices sp.*

PELECYPODA

Bivalvia sp. juv.

*Axinopsida sp. juv.*

*Cliocardium sp.*

*Clinocardium californiense*

*Cryptomya californica*

*Mytilus edulis*

*Macoma sp.*

*Macoma balthica*

*Macoma calcarea*

*Macoma nasuta*

*Macoma obliqua*

*Protothaca sp.*

*Solen sicarius*

*Tellina sp.*

*Tellina modesta*

*Transenella tantilla*

EPIBENTHIC INVERTEBRATES

ARTHROPODA

CRUSTACEA

Ostracoda

Myodocopa

Podocopa

Copepoda

Calanoida sp.

Cyclopoida sp.

Harpacticoida

*Acrenhydrosoma perplexum*  
*Bulbamphiascus sp.*  
*Dactylopodia sp.*  
*Dactylopodia vulgaris inornata*  
*Halectinosoma sp.*  
*Harpacticus*  
*Harpacticus uniremis*  
*Heterolaophonte discophora*  
*Heterolaophonte longisetigera*  
*Huntemannia jadensis*  
*Leimia vaga*  
*Microarthridion littorale*  
*Normanella sp.*  
*Parathalestris californica*  
*Rhynchothalestris helgolandica*  
*Stenhelia (Stenhelia) peniculata*  
*Tisbe spp.*  
*Typhlamphiascus pectinifer*  
*Taus sp.*

Copepoda copepodite

Copepoda nauplii

Cirripedia

*Balanus sp.*  
*Balanus glandula*  
*Balanomorpha nauplii*  
*Balanomorpha cyprids*

Malacostraca

Leptostraca

*Nebalia pugettensis*

Mysidacea sp.

*Bathycuma sp.*  
*Cumella vulgaris*  
*Eudorella sp.*  
*Eudorellopsis sp.*  
*Lamprops sp.*  
*Leptocuma sp.*  
*Leptostylis sp.*

Tanaidacea sp.

*Anatanais normani*  
*Leptochilia savignyi*  
*Pancolus californiensis*  
*Pseudotanaais oculatus*

Isopoda sp.

Bopyridae

*Gnorimosphaeroma oregonensis*  
*Munna sp.*

Amphipoda

Gammaroidea sp.

*Aoroides columbiae*  
*Allorchestes angusta*

Ampeliscidae

*Ampithoe sp.*

Calliopiidae

*Calliopioides sp.*  
*Calliopioides cf. laeviusculus*  
*Corophium sp.*  
*Eogammarus sp.*  
*Eogammarus conferviolus*  
*Eusirus sp.*  
*Guernea sp.*  
*Heterophoxus oculatus*

<i>Hyale</i> sp.	Anomuran zoea
<i>Hyale anceps</i>	Calianassidae
<i>Hyale plumulosa</i>	<i>Calianassa californiensis</i>
<i>Ischyrocerus</i> sp.	
Lysiannaissiadae	Brachyura
<i>Monoculoides</i> sp.	Brachyuran zoea
<i>Oschestia traskiana</i>	<i>Cancer magister</i>
<i>Orchomene</i> sp.	Grapsidae sp.
<i>Orchomene</i> cf. <i>pinguis</i>	<i>Hemigrapsus oregonensis</i>
<i>Paracallipiella pratti</i>	Lithodidae
<i>Paramoera</i> sp.	Pinnotheridae
<i>Paramoera mohri</i>	<i>Pinnixa occidentalis</i>
<i>Paraphoxus</i> sp.	Telmessus cheiragonus
<i>Parapleustes</i> sp.	ARACHNIDA
<i>Photis</i> sp.	Aranea
<i>Photis bifurcata</i>	Halacaridae
Phoxocephalidae	ECHINODERMATA
Pleustidae	Ophiuroidea juv.
<i>Pleusirus</i> sp.	
<i>Pleustes</i> sp.	
<i>Pleusymtes</i> sp.	
<i>Synchelidium sheomakeri</i>	
<i>Westwoodilla caecula</i>	
Hyperideidae	
<i>Parathemisto pacifica</i>	
Euphausiacea larvae	
Decapoda	
Caridea sp.	
Caridea larvae	
Caridea magalops	
Hippolytidae	
<i>Eualus fabricii</i>	
<i>Heptacarpus stimpsoni</i>	
Anomura	

**APPENDIX C**

**ANNOTATED LIST OF BIRDS  
FOUND IN COMMENCEMENT BAY**

The major sources of information for this preliminary list are published historical records, Christmas Bird Count (CBC) lists, observations from the mitigated wetlands along the Puyallup River (Gog-le-hi-te Marsh), and records from the Slater Museum. The Christmas Bird Count lists have the advantage of only including Area 2, which includes the entire Injury Study Area, as well as a small portion of the shoreline and wooded areas as far east as Dash Point State Park.

The following terms are used in this annotated list to delineate particular aspects of a species relationship to the Injury Study Area.

- Regular** Species is recorded on a frequent basis in the Injury Study Area. Some species may be rare but are recorded on a frequent basis. 130 species occur within the Injury Study Area on a regular basis, of which 36 are known to breed there.
- Rare** Species for which records of occurrence in the Injury Study Area are of an accidental nature, i.e., out of normal range. Forty-one species that are considered rare have well-documented records of occurrence in the Injury Study Area.
- Woodlands** Species associated with wooded areas, such as along the slopes of the Hylebos, or in nearby wooded areas, such as Dash Point State Park. Thirty-two species occur in the wooded areas nearby the Injury Study Area.
- Historical** Species occurred historically in the Injury Study Area, but have not been present in the area around Commencement Bay for many years, due to habitat changes. Three species historically occur in the Injury Study Area.
- Probable** Species occurring at other locations in Puget Sound, but no records are documented for Commencement Bay. As this annotated list is presented to birdwatchers in Tacoma, and as historical field notes are examined, the status of these species may change to regular or rare. Many occur at Fort Lewis. Thirty-one species are considered probable.

Possible Species for which records exist for nearby areas, but not for Commencement Bay. These species are of rare occurrence and not of major importance as resources in the Injury Study Area. Twelve species are considered possible.



As many as 30 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Horned Grebe (Slavonian)                      *Podiceps auritus*                      Regular

Common migrant and winter resident in scattered small groups. Common mid-October to April, uncommon to May in King County (Hunn, 1982). May 6, 1915, male collected "in high plumage on the tideflats near Tacoma. Two birds present" (Brown, Slater Museum). As many as 37 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Eared Grebe                                      *Podiceps nigricollis*                      Regular

Rare in winter in King County (Hunn, 1982). As many as 9 individuals seen in 4 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count, but not since 1985. Female collected Feb. 15, 1914, Pierce County "several others seen." March 5, 1918 "Several birds seen near Tacoma" (Brown, Slater Museum).

Western Grebe                                  *Aechmophorus occidentalis*                      Regular

Very common migrant and wintering in flocks in Commencement Bay, "100's seen" (Bowles, 1906). Common October to April, uncommon to May in King County (Hunn, 1982). May 20, 1914, "several birds seen on the bay, near Tacoma." and "six birds in adult plumage on June 6, 1915 near Fox Island" (Brown, Slater Museum) were undoubtedly summering. As many as 1685 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Clark's Grebe                                  *Aechmophorus clarkii*                      Rare

Rare migrant in King County (Hunn, 1982). One was observed August 8, 1987 at the mouth of the Puyallup.

#### TUBENOSES (PROCELLARIIDAE)

Northern Fulmar                              *Fulmarus glacialis*                      Possible

There is a record from King County (Hunn, 1982).

Short-tailed Shearwater                      *Puffinus tenuirostris*                      Rare

Recorded from King County (Hunn, 1982). One was observed on a Tacoma CBC.

American White Pelican                      *Pelecanus erythrorhynchos*                      Rare

Listed as "very rare migrant" in Bowles (1906). One fall record from King County (Hunn, 1982). One was found at the Gog-le-hi-te Marsh. September to November 1990 on the Hylebos (*fide* Thais Bock).

Brown Pelican                                      *Pelecanus occidentalis*                      Rare

A young male collected at Point Defiance on October 30, 1921 is one of the few documented Puget Sound records. Recovery of pelicans from their extirpation as a breeder in California has resulted in an increase in records from Washington. Two individuals were observed at Browns Point during the summer of 1993 (*fide* Thais Bock).

## CORMORANTS      (PHALACROCORACIDAE)

Brant's Cormorant                              *Phalacrocorax penicillatus*                      Regular

Listed as "common during migration and in winter" by Bowles (1906). Rare from October to May in King County (Hunn, 1982). "Single bird collected on the bay near Tacoma" January 11, 1914 (Brown, Slater Museum). Very uncommon in Commencement Bay, seen on 5 of the last 8 CBC counts (1986-1993), with a maximum of 5 individuals.

Double-crested Cormorant                      *Phalacrocorax auritus*                      Regular

Common from November to April in King County (Hunn, 1982), increasing in population. As many as 103 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Pelagic Cormorant                              *Phalacrocorax pelagicus*                      Regular

Listed as White-crested Cormorant (*P. dilophus cincinatus*) as "probably not uncommon visitor" in 1906, and as winter resident in 1922 by Bowles (1906). Uncommon from November to April in King County (Hunn, 1982). A female



Listed as "rare but regular migrant" in 1906 and "summer resident" in 1922 list of Bowles. Listed as rare breeding resident in King county (Hunn, 1982). Female collected in "So. Tacoma swamp" September 27, 1896. Birds were heard there until at least 1935. None have been seen at the Gog-le-hi-te Marsh.

## DUCKS, SWANS, GEESE (ANATIDAE)

- |  |                           |          |
|--|---------------------------|----------|
| Ruddy Duck   | <i>Oxyura jamaicensis</i> | Regular  |
| Common October to May, breeds rarely in King County (Hunn, 1982). "Male bird collected on creek at tideflats" September 6, 1916 (Brown, Slater Museum). One December record from Gog-le-hi-te Marsh, 1990.   |                           |          |
| Trumpeter Swan   | <i>Cygnus buccinator</i>  | Probable |
| Rare in early-winter in King County (Hunn, 1982). No records for Commencement Bay.   |                           |          |
| Tundra Swan  | <i>Cygnus columbianus</i> | Rare     |
| Listed as Trumpeter Swan in Bowles (1906) as a "rather rare but regular migrant," and as the Whistling swan in 1922. Rare in winter and spring in King County (Hunn, 1982). Seen as early as October 25, 1919, when "30 birds seen on the Nisqually flats" (Brown, Slater Museum). |                           |          |
| Greater White-fronted Goose  | <i>Anser albifrons</i>    | Rare     |
| A "common migrant" in the 1906 and 1922 lists by Bowles. Rare in winter in King County (Hunn, 1982). Two to three were seen at Gog-le-hi-te Marsh in September and October 1992. Was documented during 1978 (2 individuals) and 1983 (1 specimen) CBCs in Area 2.                  |                           |          |
| Snow Goose   | <i>Anser caerulescens</i> | Rare     |
| Rare in winter and spring in King County (Hunn, 1982). Male collected on tideflats December 11, 1915. Seen November 1986 and October 1989 in Gog-le-hi-te Marsh (Jensen, 1992).  |                           |          |

- Emperor Goose *Anser canagica* Possible  
 A few records from King County (Hunn, 1982).
- Canada Goose *Branta canadensis* Regular  
 The *hutchinsii* and *occidentalis* (White-cheeked) subspecies are listed as common migrants in the 1906 list and the (cackling) is added in the 1922 list of Bowles. Resident semi-domesticated geese have greatly increased in the Hylebos area. As many as 356 individuals seen in 15 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count. Several pairs reported as breeding in 1981 in the Hylebos, well over a dozen territories and several sets of goslings were seen in 1994.
- Brant (Brent Goose) *Branta bernicla* Regular  
 Listed as a migrant in 1906, and as a wintering resident in 1922 by Bowles. Common in April in King County, a few winter (Hunn, 1982). On March 8, 1914, a "flock of 120 birds were seen on the bay near Tacoma."
- Wood Duck *Aix sponsa* Regular  
 Listed as rare summer resident in 1906 and migrant in 1922 lists of Bowles. Readily nests in boxes and thus would be an excellent species for monitoring. A rare resident in King County (Hunn, 1982). Two records from Gog-le-hi-te Marsh in 1991, 2 males May 27, one female September 28, and one in June of 1993 (Jensen, 1992; *fide* Thais Bock).
- Eurasian Wigeon *Anas penelope* Regular  
 A rare but regular winter visitor. Rare from October to May in King County (Hunn, 1982). Records from Gog-le-hi-te Marsh from November to late-March (Jensen, 1992). As many as 3 birds have been seen in Area 2 of the Tacoma CBC in 6 of the last 8 years (1986 to 1993).
- American Wigeon *Anas americana* Regular  
 One of the most common ducks in the tideflats. Will readily graze on grass, and is thus easily sustained in quite artificial settings. Abundant from October to May in King County (Hunn, 1982). Early records for Pierce County are listed from Nisqually flats from 1916 to 1934 with the exception of a "male

bird collected” on December 9, 1932 in the tideflats (Brown, Slater Museum). As Balpate, “adult male collected, birds common, one flock of about 120 birds seen” in Pierce County Feb 15, 1914. As many as 421 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Gadwall *Anas strepera* Regular

Early classification name was *Chaulelasmus streperus*, a rare migrant in 1906 (Bowles, 1906) and wintering species (Bowles, 1922), but its numbers have steadily increased and it has become a breeding species (Hunn, 1982). Would benefit from wetland habitat restorations. Uncommon in King County, breeds (Hunn, 1982). As many as 76 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count. No breeding records.

Common Teal *Anas crecca* Regular

Listed as Green-winged Teal (*Nettion carolinensis*), an abundant wintering species in marine tideflats, along the wigeon and pintail as the most abundant. Abundant from October to May in King County, rarely breeds (Hunn, 1982). “Female collected, birds common” on Oct 1, 1913, “birds common on the tideflats” on September 23, 1917 in Pierce County. As many as 210 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Mallard *Anas platyrhynchos* Regular

A common breeding resident, almost a domesticated duck in many locations. As many as 439 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Northern Pintail *Anas acuta* Regular

A very common species in migration and winter. A “young male collected on the tideflats. Several birds seen” on October 12, 1911, and “ten birds seen” on February 1, 1914 (Brown, Slater Museum). As many as 300 individuals seen in 16 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count, with a distinctive downward trend.

Blue-winged Teal	<i>Anas discors</i>	Regular
<p>Uncommon in summer, has bred, very rare in winter (Hunn, 1982). Seen at Gog-le-hi-te Marsh in April 1988 and 1992, and a male from May into June 1991 (Jensen, 1992). Five were seen on the 1979 CBC in Area 2.</p>		
Cinnamon Teal	<i>Anas cyanoptera</i>	Regular
<p>Uncommon in summer, has bred, rare in winter (Hunn, 1982). Seen at Gog-le-hi-te Marsh in January and February 1987, March 1992, and several times in the spring, but only one fall record on November 1988 (Jensen, 1992).</p>		
Northern Shoveler	<i>Anas clypeata</i>	Regular
<p>Uncommon in summer, has bred, very common from mid-October to May (Hunn, 1982). As many as 22 individuals seen in 9 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.</p>		
Canvasback	<i>Aythya valisineria</i>	Regular
<p>Uncommon from late-October to April (Hunn, 1982). Rarely seen, maximum of 4 birds seen in 7 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count. Seen in March 1988 at Gog-le-hi-te Marsh (Jensen, 1992).</p>		
Redhead	<i>Aythya americana</i>	Probable
<p>Rare from mid-September to March in King County (Hunn, 1982). No records for Commencement Bay, but listed as a "rare migrant, keeping to the fresh water" in Tacoma (Bowles, 1906).</p>		
Ring-necked Duck	<i>Aythya collaris</i>	Probable
<p>Uncommon from October to April (Hunn, 1982). No records from Commencement Bay, mostly occurring on fresh water.</p>		
Tufted Duck	<i>Aythya fuligula</i>	Probable
<p>Very rare in winter (Hunn, 1982).</p>		
Greater Scaup	<i>Aythya marila</i>	Regular
<p>Common from mid-October to March, uncommon to May (Hunn, 1982). As many as 163 individuals seen in 12 of 17 years (1977 to 1993) in Area 2 of the</p>		

Tacoma CBC count. Two records for Gog-le-hi-te Marsh in February 1990 and April 1988 (Jensen, 1992).

- |   |                                  |          |
|---|----------------------------------|----------|
| Lesser Scaup  | <i>Aythya affinis</i>            | Regular  |
| Common from mid-October to March, uncommon to May (Hunn, 1982). As many as 132 individuals seen in 10 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.   |                                  |          |
| King Eider  | <i>Somateria spectabilis</i>     | Possible |
| One old record for Seattle, 1948 (Hunn, 1982).  |                                  |          |
| Harlequin Duck  | <i>Histrionicus histrionicus</i> | Regular  |
| Uncommon from November to April, some summer records (Hunn, 1982). Birds have been seen recently at Browns Point. As many as 10 individuals seen in 9 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count. A late female was seen at the mouth of the Puyallup River on May 2, 1994 ( <i>vide</i> Thais Bock). |                                  |          |
| Oldsquaw (Long-tailed Duck)   | <i>Clangula hyemalis</i>         | Rare     |
| Rare in winter (Hunn, 1982). Rarely seen on the Tacoma CBC. Also seen on American Lake regularly in winter. Individuals were seen on the 1979 and 1980 CBCs in Area 2 in Tacoma.  |                                  |          |
| Black Scoter  | <i>Melanitta nigra</i>           | Regular  |
| Uncommon from November to April, rare to May (Hunn, 1982). As many as 23 individuals seen in 5 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.  |                                  |          |
| Surf Scoter   | <i>Melanitta perspicillata</i>   | Regular  |
| Listed as common from October to May by Bowles (1906). Common from mid-September to April, uncommon to May (Hunn, 1982). As many as 117 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count.   |                                  |          |

White-winged Scoter                      *Melanitta fusca*                      Regular

Common from mid-October to mid-April, uncommon to May, rare non-breeders in summer (Hunn, 1982). As many as 12 individuals seen in 14 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Common Goldeneye                      *Bucephala clangula*                      Regular

Listed as *Clangula clangula* by Bowles in 1906, birds seen were not identified as 2 species. Uncommon in November, common from December to April, uncommon to May (Hunn, 1982). Females were collected on the tideflats November 16 and December 7, 1913 and 2 individuals on December 16, 1915. As many as 61 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count. Seen at Gog-le-hi-te Marsh from November to April irregularly (Jensen, 1992).

Barrow's Goldeneye                      *Bucephala islandica*                      Regular

No Barrow's are indicated in the 1906 list by Bowles, but it is listed in the 1922 list. Uncommon mid-November to May (Hunn, 1982). As many as 306 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count. Seen only 2 of 5 years at Gog-le-hi-te Marsh, in December and February. Reported to have nested in the pilings in Milwaukee Waterway (Dames & Moore, 1981) but it is typically absent in the summer.

Bufflehead                      *Bucephala albeola*                      Regular

Uncommon from mid-October to mid-November, then common in May, has summered in King County (Hunn, 1982). As many as 46 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count. Four records at Gog-le-hi-te Marsh (Jensen, 1992).

Hooded Merganser                      *Lophodytes cucullatus*                      Regular

Uncommon September to April, rare in summer, breeds in wooded areas (Hunn, 1982). Seen at Gog-le-hi-te Marsh (Jensen, 1992). Fledged young were seen at the wetlands of the West Hylebos, May 14, 1987, using wood duck boxes. As many as 12 individuals seen in 12 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Red-breasted Merganser                      *Mergus serrator*                      Regular

Listed as a common migrant in 1906 and a winter resident in 1922 by Bowles. Common November to March, uncommon to May (Hunn, 1982). Only seen in March and April at Gog-le-hi-te Marsh (Jensen, 1992). As many as 47 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Common Merganser                      *Mergus merganser*                      Regular

Listed as a resident being more common in migration and winter. Breeds on rivers. Uncommon resident in King County, breeds along inland rivers (Hunn, 1982). As many as 17 individuals seen in 13 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count. Seen at Gog-le-hi-te Marsh. In November of 1987, 14 individuals were seen on the Hylebos .

#### AMERICAN VULTURES (CATHARTIDAE)

Turkey Vulture                      *Cathartes aura*                      Rare

Transient with most abundant period in fall (Hunn, 1982). The earliest record was a bird on the tidflats April 5, 1914, with birds as late as May 30, 1914 (Brown, Slater Museum). Winter records include one seen by Bowles on February 14 and March 1, 1925. Earlier records were no doubt related to offal and carcasses in the tidflats.

#### HAWKS (ACCIPITRIDAE)

Osprey                      *Pandion haliaetus*                      Regular

Summer breeder, uncommon but increasing in number, rare into December in King County (Hunn, 1982). Recent observations of osprey during the summer months in the Commencement Bay and Maury Island area may indicate local breeding is possible. Nesting platforms have been placed on power lines owned by Tacoma Public Utility at Purdy (*fide* Debbie Young) and these have been successful in hosting breeding for more than 5 years.

- Bald Eagle *Haliaeetus leucocephalus* Regular  
 Rare but visible breeder, uncommon during early-spring during migrations from salmon spawn outs (Hunn, 1982). As many as 3 individuals seen in 6 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.
- Northern Harrier *Circus cyaneus* Regular  
 Uncommon September to April, rare in summer, may breed in King County (Hunn, 1982). Has probably bred in the past, but there are no records. Only one individual has been seen on 3 of 17 years in Area 2 of the Tacoma CBC count (1979, 1983, and 1989).
- Sharp-shinned Hawk *Accipiter striatus* Regular  
 Uncommon October to May, rare in summer (Hunn, 1982). Has been recorded on 14 of 17 years in Area 2 of the Tacoma CBC from 1977 to 1993.
- Cooper's Hawk *Accipiter cooperii* Regular  
 Uncommon September to April, rare in summer, breeds in wooded areas in King and Pierce Counties (Hunn, 1982).
- Northern Goshawk *Accipiter gentilis* Possible  
 Rare in winter in lowlands, breeds in mountains in King County (Hunn, 1982). No records for Commencement Bay.
- Swainson's Hawk *Buteo swainsoni* Probable  
 Three records for King County (Hunn, 1982). No records for Commencement Bay.
- Red-tailed Hawk *Buteo jamaicensis* Regular  
 Common resident breeder. As many as 13 individuals seen in 16 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.
- Rough-legged Hawk *Buteo lagopus* Probable  
 Rare in winter in open spaces, like Kent valley in King County (Hunn, 1982). Is recorded regularly at Nisqually (*fide* Louise Vicencio).





## RAILS (RALLIDAE)

Virginia Rail *Rallus limicola* Regular

Uncommon resident in wetlands of King County (Hunn, 1982). The presence of cattails at the Gog-le-hi-te Marsh ensures that Virginia Rails and Soras are present. As many as 2 individuals seen in 3 of 17 years (1986 to 1993) in Area 2 of the Tacoma CBC count.

Sora Rail *Porzana carolina* Regular

Rare summer resident of wetlands, uncommon in late-fall in King County (Hunn, 1982). Is infrequently reported in CBCs in Washington state, but none on the Tacoma CBC from Area 2. Only recorded 4 times in the spring at the Gog-le-hi-te Marsh, from 1988 to 1992.

American Coot *Fulica americana* Regular

Common resident in King County freshwater areas, abundant in winter, with large numbers (>1000) seen along Lake Washington presumably feeding on millfoil (Hunn, 1982). As many as 83 individuals seen in all 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count. Occurs on marina intertidal water.

## OYSTERCATCHERS (HAEMATOPODIDAE)

Black Oystercatcher *Haematopus bachmani* Possible

One record, 1981 CBC in Seattle (Hunn, 1982).

## PLOVERS (CHARADRIIDAE)

Black-bellied Plover *Pluvialis squatarola* Regular

As with many of the migratory shorebirds, it is more common in the fall in Puget Sound.

Semipalmated Plover                      *Charadrius semipalmatus*                      Regular

As with many of the migratory shorebirds, it is more common in the fall in Puget Sound, with some birds rarely remaining into winter (Hunn, 1982). Birds were seen at Gog-le-hi-te Marsh August 1989, April 1992, and July 1992.

Killdeer                                      *Charadrius vociferus*                      Regular

Common resident, breeding in open fields. As many as 58 individuals seen in 15 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.

### SANDPIPERS (SCOLOPACIDAE)

Common Snipe                              *Gallinago gallinago*                      Regular

Uncommon in winter, breeds rarely in King County (Hunn, 1982). As many as 12 individuals seen in 10 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Bar-tailed Godwit                      *Limosa lapponica*                      Rare

One was seen at the Gog-le-hi-te Marsh October 11, 1986.

Marbled Godwit                              *Limosa fedoa*                      Probable

There is one fall record for King County in October of 1974 (Hunn 1982).

Whimbrel                                      *Numenius phaeopus*                      Rare

Bowles (1906) lists it as a "very common spring migrant, but never seen in the fall" in Tacoma. Recent records are equally likely in spring or fall in King County (Hunn, 1982).

Long-billed Curlew                      *Numenius americanus*                      Possible

There is a single fall record for King County from 1856, but the bird has been seen on the Washington coast (Hunn, 1982). No records from the tideflats.

Willet *Catoptrophorus semipalmatus* Probable

This is a rare migrant and winter resident in western Washington, with only a few records from King County (Hunn, 1982).

Greater Yellowlegs *Tringa melanoleuca* Regular

As with many of the migratory shorebirds, it is more common in the fall in Puget Sound, one of the more common migrants in King County (Hunn, 1982). A few birds have been known to winter. Seen on 4 occasions at Gog-le-hi-te Marsh April, May, and July.

Lesser Yellowlegs *Tringa flavipes* Regular

As with many of the migratory shorebirds, it is more common in the fall in Puget Sound, one of the more common migrants in King County (Hunn, 1982). Less common than greater yellowlegs. Seen four occasions at Gog-le-hi-te Marsh June, July, and August.

Solitary Sandpiper *Tringa solitaria* Rare

As with many of the migratory shorebirds, it is more common in the fall in Puget Sound. It has been seen in May, July, August, and September in King County (Hunn, 1982). One was seen April 29 at Gog-le-hi-te Marsh in 1994 (*fide* Thais Bock).

Spotted Sandpiper *Tringa macularia* Regular

One of two species of sandpiper to nest in Commencement Bay, and a few winter, all in the Hylebos. As many as 5 individuals seen in 9 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Ruddy Turnstone *Arenaria interpres* Regular

One was seen on the 1979 CBC, and single birds have been seen, typically with Black Turnstones, at the Hylebos log booms. None have been seen in King County (Hunn, 1982).

- Black Turnstone *Arenaria melanocephala* Regular  
 This is a rare migrant and overwintering species in King County (Hunn, 1982). As many as 31 individuals seen in 10 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count, typically seen on the log booms in the Hylebos. The latest observations occur in late-April (*vide* Thais Bock).
- Rock Sandpiper *Calidris ptilocnemis* Rare  
 One was seen over the winter of 1994 with Black Turnstones at the Hylebos log booms.
- Short-billed Dowitcher *Limnodromus griseus* Probable  
 As with many of the migratory shorebirds, it is more common in the fall in Puget Sound. It is less common than the long-billed dowitcher (Hunn, 1982).
- Long-billed Dowitcher *Limnodromus scolopaceus* Regular  
 As with many of the migratory shorebirds, it is more common in the fall in Puget Sound, but is a much less uncommon than other migrants. None have been seen on the Tacoma CBC, but it has been seen in King County in the winter (Hunn, 1982).
- Surfbird *Aphriza virgata* Possible  
 There is a single report for King County in April of 1961, without details (Hunn, 1982). This is strictly a species of the outer coast. It is listed as a migrant in Dames & Moore (1981) without specific documentation.
- Red Knot *Calidris canutus* Rare  
 Bowles collected one in September 1897, listed as the tideflats. There are no records for King County (Hunn, 1982).
- Sanderling *Calidris alba* Rare  
 More common on the beaches of the outer coast, but a few birds remain in Puget Sound in the winter after appearing in September and remain until late-April. This bird has been seen at Browns Point on the 1991 CBC. Along with the Dunlin, the most likely sandpiper to observe (Hunn, 1982).

Semipalmated Sandpiper                      *Calidris pusilla*                      Probable

As with many of the migratory shorebirds, it is more common in the fall in Puget Sound, but no records are listed from the tideflats. Seen in May, July, August, and September rarely in King County (Hunn, 1982).

Western Sandpiper                      *Calidris mauri*                      Regular

As with many of the migratory shorebirds, it is more common in the fall in Puget Sound, with some birds remaining through the winter. Listed as a "very common migrant" by Bowles (1906). There were 125 on the 1982 CBC in Area 2 of the Tacoma CBC, but less than five birds were seen on 2 other CBCs from 1977 to 1993.

Least Sandpiper                      *Calidris minutilla*                      Regular

As with many of the migratory shorebirds, it is more common in the fall in Puget Sound, with some birds remaining through the winter (Hunn, 1982). Listed as a "common migrant" by (Bowles, 1906). As many as 48 individuals seen in all years (1977 to 1993) in Area 2 of the Tacoma CBC count. Records for the Gog-le-hi-te Marsh are in spring and fall, with birds beginning to return in early-July, but no records past September.

Baird's Sandpiper                      *Calidris bairdii*                      Probable

As with many of the migratory shorebirds, it is more common in the fall in Puget Sound, rarely seen in May, July, August, and September in King County (Hunn, 1982). No records for the tideflats, and none from Bowles (1906) or Dawson and Bowles (1909).

Pectoral Sandpiper                      *Calidris melanotos*                      Regular

As with many of the migratory shorebirds, it is more common in the fall in Puget Sound, Bowles (1906) reported it as a "regular but not at all common migrant." Seen on 6 occasions at Gog-le-hi-te Marsh, in the falls of 1987, 1990, 1991, and 1992, and one record for May 1992.

Sharp-tailed Sandpiper                      *Calidris acuminata*                      Rare

As with many of the migratory shorebirds, it is more common in the fall in Puget Sound, but a very rare Asiatic shorebird. A specimen from Nisqually in

November 1927, and a bird observed in August from Tacoma in 1940. Not reported from King County (Hunn, 1982).

Dunlin *Calidris alpina* Regular

Bowles (1906) lists as "common during migrations and in winter." As many as 390 individuals seen in all but one year (1990) from 1977 to 1993 in Area 2 of the Tacoma CBC count. Counts for the Hylebos range as follows: November 1981, 150; March 1991, 200; April 12, 1991, 500. Scattered reports from the Gog-le-hi-te Marsh are from October to May (*fide* Thais Bock).

Stilt Sandpiper *Micropalama himantopus* Rare

As with many of the migratory shorebirds, it is more common in the fall in Puget Sound, a specimen was taken from the Tacoma tideflats in September 1941. One was seen at the Gog-le-hi-te Marsh August 24, 1988. There are only fall records from King County for July, August, and September (Hunn, 1982).

Buff-breasted Sandpiper *Tryngites subruficollis* Rare

A rare fall sandpiper, often found on grassy or sandy areas away from water. Bowles collected two males in September 1919 in the tideflats. This is a rare fall visitor to the outer coast.

Wilson's Phalarope *Steganopus tricolor [Phalaropus]* Rare

This is a summer visitor to King County (Hunn, 1982). Listed in Dames & Moore (1981) as a migrant.

Red-necked Phalarope (Northern) *Phalaropus lobatus* Rare

Reported as "common fall migrant, but never seen in spring" (Bowles, 1906), rarely seen in May, August, and September in King County (Hunn, 1982). Listed as a migrant in Dames & Moore (1981).

## AVOCETS AND STILTS (RECURVIROSTRIDAE)

American Avocet                      *Recurvirostra americana*                      Possible

This is an rare bird in western Washington, with two records from King County, in May and June (Hunn, 1982).

## SKUAS AND JAEGERS (STERCORARIIDAE)

Parasitic Jaeger                      *Stercorarius parasiticus*                      Regular

This is an uncommon migrant in the fall, rare in May, in Puget Sound, chiefly over open water pursuing gulls and terns (Hunn, 1982). Records of the other species, Long-tailed Jaeger (*Stercorarius longicaudus*) and Pomarine Jaeger (*Stercorarius pomarinus*) are very few, and without specimens, somewhat doubtful without careful documentation.

## GULLS AND TERNS (LARIDAE)

Heermann's Gull                      *Larus heermanni*                      Rare

This is a rare late-fall visitor to Puget Sound, the result of post-breeding dispersal northward from colonies in California. Thousands of birds move north into Washington, particularly in "El Nino" years. Birds are most common in King County in November (Hunn, 1982). Birds have been seen in Commencement Bay in September 1991 and October 1983 on the Hylebos and in November 1985 at Browns Point.

Mew Gull                      *Larus canus*.                      Regular

An abundant winter visitor, first appearing in large numbers in mid-October and remaining until April (Hunn, 1982). Numbers on the Tacoma CBC in Commencement Bay have ranged from 1067 in 1977 to 42 in 1988 (a very foggy count).

Ring-billed Gull *Larus delawarensis* Regular

This is an uncommon migrant and winter visitor, but apparently not very common in Commencement Bay. As many as 8 individuals have been seen in 8 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count. Birds were seen on two occasions in at Gog-le-hi-te Marsh in October.

California Gull *Larus californicus* Regular

As many as 4 individuals have been seen on 3 CBCs in Area 2 in years 1983, 1990, and 1991 on the Tacoma CBC count. It was seen on 12 occasions at the Gog-le-hi-te Marsh in the fall and winter. It is more common in the fall than the Ring-billed Gull in Puget Sound (Hunn, 1982).

Glaucous-winged Gull *Larus glaucescens* Regular

This is the common resident gull in Commencement Bay. It is well known for breeding on the roof of many industries in the tideflats. As many as 1100 individuals have been seen in Area 2 of the Tacoma CBC count, with many counts of "gull sp." probably being this species. There have also been hybrid glaucous-winged-Western Gulls reported, especially in winter (Hunn, 1982).

Western Gull *Larus occidentalis* Rare

Breeding on the coast, these gulls are rare in Puget Sound in the winter (Hunn, 1982), and have been reported on 3 CBCs from 1990-1992 in Area 2 of the Tacoma count.

Glaucous Gull *Larus hyperboreus* Rare

This is a rare late-winter visitor to Puget Sound (Hunn, 1982). First and second year birds have been seen at Gog-le-hi-te Marsh in 1990, 1991, and 1992.

Thayer's Gull *Larus thayeri* Regular

Has been large numbers at Gog-le-hi-te Marsh from late-September to late-March. As many as 285 individuals have been seen in 13 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Herring Gull	<i>Larus argentatus</i>	Regular
<p>Less frequently seen than Thayer's Gull at Gog-le-hi-te Marsh, from October to March, with as many as 32 individuals seen in 5 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.</p>		
Bonaparte's Gull	<i>Larus philadelphia</i>	Regular
<p>This species can be extremely abundant in spring and fall, with only June without many records, and with many individuals wintering in Puget Sound (Hunn, 1982). As many as 47 individuals seen in 12 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count, generally over open water.</p>		
Slaty-backed Gull	<i>Larus schistisagus</i>	Rare
<p>This accidental species was regularly seen from winter into summer at Gog-le-hi-te Marsh and along the Puyallup River (<i>vide</i> Thais Bock).</p>		
Black-legged Kittiwake	<i>Rissa tridactyla</i>	Rare
<p>Listed as a migrant in the Dames &amp; Moore (1981) report.</p>		
Franklin's Gull	<i>Larus pipixcan</i>	Rare
<p>This is a rare fall visitor to Puget Sound (Hunn, 1982). It was seen in Commencement Bay in September 1989 in the Hylebos, and on Ruston Way in September 1985. It was listed as a migrant in the Dames &amp; Moore (1981) report.</p>		
Little Gull	<i>Larus minutus</i>	Probable
<p>This is a very rare visitor in spring and fall, but it has recently been seen on American Lake on the Tacoma CBC in 1992 and 1993.</p>		
Caspian Tern	<i>Sterna caspia</i> [ <i>Hydroprone</i> ]	Regular
<p>Recent spring records from the tideflats indicate the future possibility that this species will breed in south Puget Sound, as 3,000 birds have recently bred in Everett and Padilla Bay. Juveniles with adults have been seen at the Hylebos in late-summer. There are no records for this species in Dawson and Bowles (1909).</p>		

Elegant Tern *Sterna elegans* Rare

As a late example of the "El Nino" of 1992, 2 birds were seen on the Hylebos October 1, 1993. The first records of this species occurred after the strong "El Nino" in 1983.

Common Tern *Sterna hirundo* Regular

Common fall migrant into Commencement Bay. Birds appear in King County in late-July and remain an uncommon species until late-October (Hunn, 1982). Records from Commencement Bay include 25 individuals seen on September 9, 1984 and 500 individuals seen on September 10, 1989 at the Hylebos. None have been seen at Gog-la-hi-te Marsh.

#### ALCIDS (ALCIDAE)

Common Murre *Uria aalge* Regular

Uncommon on Puget Sound in the winter (Hunn, 1982). As many as 28 individuals seen in 14 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Pigeon Guillemot *Cepphus columba* Regular

As many as 2 individuals seen in 4 years (1977 to 1993) in Area 2 of the Tacoma CBC count. Adults in breeding plumage are seen along Ruston Way, indicating breeding under many of the abandoned docks and wharves. Birds have been seen in summer in the waterways (Wahl and Speich, 1982).

Marbled Murrelet *Brachyramphus marmoratus* Regular

Birds are regularly seen from Browns Point in the summer, with birds flying south in the early-morning. As many as 15 individuals seen in 8 of 17 years (1977 to 1993) in Area 2 of the Tacoma CBC count.

Ancient Murrelet *Synthliboramphus antiquus* Rare

This is a rare late-fall visitor to Puget Sound (Hunn, 1982). Commencement Bay records are from Browns Point.

Cassin's Auklet                      *Ptychoramphus aleuticus*                      Possible

A specimen of this entirely oceanic wintering seabird was observed from Seattle in March 1982 (Hunn, 1982). It is listed as an uncommon winter resident in the Dames & Moore (1981) report.

Rhinoceros Auklet                      *Cerorhinca monocerata*                      Regular

An common winter species in marine areas. Whether the birds wintering in Puget Sound are from the large colony on Protection Island is not fully established. As many as 77 individuals seen in 16 of 17 years (1976 to 1993) in Area 2 of the Tacoma CBC count. In January 1988, there were 183 specimens along Ruston Way.

#### PIGEONS AND DOVES (COLUMBIDAE)

Rock Dove                      *Columba livia.*                      Regular

An abundant species in many habitats.

Band-tailed Pigeon                      *Columba fasciata*                      Woodlands

The Tacoma CBC held the National High Count for band-tails on some years with over 2500 birds counted above the Hylebos, feeding in madrone trees. Most of the madrone woods are gone now.

Mourning Dove                      *Zenaida macroura*                      Regular

This is another species, like the barn owl, that has declined in recent years due to the destruction of lowland open space and agricultural areas (Hunn, 1982), but apparently increased greatly in numbers in western Washington from the mid-1800's as farmland increased. Slipp in 1940 recorded its numbers increased in Pierce County.

White-winged Dove                      *Zenaida asiatica*                      Rare

Bowles collected a specimen on November 7, 1907 in the Puyallup River Valley (Jewett, 1953).

## CUCKOOS (CUCULIDAE)

Yellow-billed Cuckoo                      *Coccyzus americanus*                      Historical

It was reported as an uncommon summer nester, near Tacoma (Bowles, 1906). This bird has disappeared throughout the West, with the decline of quality riparian areas. Recent records include breeding in northern Oregon and an observation along the Snohomish River.

## BARN OWLS (TYTONIDAE)

Barn Owl                                      *Tyto alba*                                      Regular

The decline of barn owls due to the conversion of open space into suburban developments may also be hastened by the destruction of adequate nesting locations. Records from Commencement Bay include several on the CBC in the Fife section of Area 2.

## TYPICAL OWLS (STRIGIDAE)

Flammulated Owl                      *Otus flammeolus*                      Possible

A single record on October 1980 in Seattle for this typically Cascade mountain species was all that could be located (Hunn, 1982).

Western Screech-Owl                      *Otus kennicottii*                      Woodlands

This is the most common owl in small watersheds that enter into Commencement Bay.

Great Horned Owl                      *Bubo virginianus*                      Regular

Larger woodlots, especially those with access to the tidflats, provide enough cover for great horn owls to breed.

Snowy Owl *Nyctea scandiaca* Rare

This is a rare winter visitor during the years that prey is scarce in the Arctic. As many as 30 individuals were brought into the taxidermist in Tacoma during the winter of 1916-1917. These birds eat 50 percent ducks, other owls, and rabbits and 50 percent small rodents. Records from Tacoma are very scarce.

Spotted Owl *Strix occidentalis* Historical

Bowles reported this owl nesting in Tacoma (1906) but its association with old growth timber makes its presence in Commencement Bay unlikely.

Barred Owl *Strix varia* Woodlands

This is another species that has expanded its range into Washington very recently, with the first specimen reported in 1973 (Hunn, 1982). Its nesting in Discovery Park in Seattle makes it a likely species to occur in dense woods in the Commencement Bay area.

Great Gray Owl *Strix nebulosa* Possible

This is a rare visitor to the Puget Sound lowlands for reasons not as well understood as snowy owls, with two specimens from King County (Hunn, 1982).

Northern Pygmy-Owl *Glaucidium californicum* Woodlands

This is an uncommon resident of coniferous forest openings, where it feeds on small birds. Jewett lists it (*G. gnoma grinnelli*) as occurring in "logged off land in the neighborhood of Tacoma" but gives no specific dates or observers (Jewett, 1953).

Short-eared Owl *Asio flammeus* Probable

Short-eared Owls are uncommon winter visitors to King County grassland/marsh habitat (Hunn, 1982). There are no records for the tidflats, though it occurs in the Kent Valley and has nested at Magnuson Park in Seattle.

## NIGHTJARS (CAPRIMULGIDAE)

Common Nighthawk                      *Chordeiles minor*                      Regular

This is a species that has become decidedly rare in the last 50 years. It typically doesn't arrive until late-May, and is completely gone by mid-September (Hunn, 1982). It commonly nests throughout the United States on rooftops in urban areas, so its reduction in numbers, even in outlying areas, is of great concern. Gravel on the roof tops of flat topped building provides adequate nesting habitat.

Common Poorwill                      *Phalaenoptilus nuttallii*                      Possible

This is strictly a bird of east of the Cascades, one was found at Enumclaw in June 1964 (Hunn, 1982).

## SWIFTS (APODIDAE)

Vaux's Swift                      *Chaeture vauxi*                      Regular

Bowles reports swifts nesting in the tops of cottonwood trees (Bowles, 1906). They are frequently seen in large flocks in September as they congregate prior to migration. They appear in early-May and completely disappear by late-September (Hunn, 1982). They have nested in chimneys (Jewett, 1953).

## HUMMINGBIRDS (TROCHILIDAE)

Anna's Hummingbird                      *Calypte anna*                      Woodlands

This is a rare resident, an example of range expansion in the last 30 years (Hunn, 1992). They do overwinter, almost completely dependant upon feeders and ornamental planting.

Calliope Hummingbird                      *Stellula calliope*                      Rare

Bowles lists a record in Tacoma on May 10, 1905, of this species which occurs primarily east of Cascades.

Rufous Hummingbird                      *Selasphorus rufus*                      Woodlands

Beginning in March, this species occurs in a variety of woodlands along the slopes of Commencement Bay, feeding primarily on salmonberry. This is one of the species impacted by the alteration of local woodlands away from native plants, and restoration projects should include planting of their preferred flowers.

### **KINGFISHERS (ALCEDINIDAE)**

Belted Kingfisher                      *Megaceryle alcyon*                      Regular

An uncommon species, not known if it is a permanent resident or whether wintering birds replace nesting birds that winter further south. A nesting hole was discovered on December 18, 1993 along the Browns Point bluff, and 6 birds were counted along the Hylebos that morning.

### **WOODPECKERS (PICIDAE)**

Red-breasted Sapsucker                      *Sphyrapicus ruber*                      Woodlands

This bird is to be expected in very cold periods in winter. Breeds at Fort Lewis in willow wetlands.

Downy Woodpecker                      *Picoides pubescens*                      Regular

A common woodland and fragmented woodlot resident species, recorded on all recent CBCs as well as out in the tideflat cottonwoods and willows.

Hairy Woodpecker                      *Picoides villosus*                      Rare

Is decidedly rarer than the downy, no doubt because its nesting hole can be co-opted by the European starling. It has been recorded on only one occasion in Area 2 of the Tacoma CBC in the last 8 years, which includes extensive woodlands along the edges of Commencement Bay and Puget Sound to Dash Point State Park.







Clark's Nutcracker                      *Nucifraga columbiana*                      Rare  
One was seen on December 1992 at Browns Point.

Northwestern Crow                      *Corvus caurinus*                      Regular  
The coastal Northwestern Crow, common in flocks along the coast, breeds colonially, feeds along the tideline, and is therefore of interest in its potential exposure to contaminants in intertidal areas and from eating carcasses.

Common Raven                      *Corvus corax*                      Rare  
A rare visitor to the tideflats mentioned by Bowles (1922). Breeds at Fort Lewis.

#### **TITMICE (PARIDAE)**

Black-capped Chickadee                      *Parus atricapillus*                      Regular  
This common resident has been seen along the slopes of Hylebos, and has occurred at Gog-le-hi-te Marsh in all months.

Mountain Chickadee                      *Parus gambeli*                      Probable  
Has been recorded in Tacoma and Federal Way as a cold weather, winter visitor, but not in Commencement Bay.

Chestnut-backed Chickadee                      *Parus rufescens*                      Woodlands  
This resident species would be expected along the slopes of Hylebos, where it prefers more coniferous habitat than the Black-capped. It has not occurred at Gog-le-hi-te Marsh.

#### **BUSHTITS (AEGITHALIDAE)**

Common Bushtit                      *Psaltriparus minimus*                      Regular  
This common resident species would be expected along the slopes of Hylebos, and has occurred at the Gog-le-hi-te Marsh.

## NUTHATCHES (SITTIDAE)

Red-breasted Nuthatch                      *Sitta canadensis*                      Woodlands

This common resident species would be expected along the slopes of Hylebos, but has not occurred at the Gog-le-hi-te Marsh.

White-breasted Nuthatch                      *Sitta carolinensis*                      Probable

Historically, this species was associated with the Gambel's oaks in the "prairies" east of Tacoma, but is extremely rare now. It does breed near Fort Lewis (*vide* Thais Bock).

## CREEPERS

Brown Creeper                                      *Certhia americana*                                      Woodlands

This common resident species would be expected along the more evergreen slopes of Hylebos.

## WRENS

Marsh Wren    *Cistothorus palustris*    Regular

Common nesting and overwintering wren of wetlands, occurring all 12 months at the Gog-le-hi-te Marsh.

Bewick's Wren    *Thryomanes bewickii*    Regular

This common resident species would be expected along the slopes of Hylebos, and has occurred during every month except May from 1987-1991 at the Gog-le-hi-te Marsh (Jensen, 1992).

Winter Wren    *Troglodytes troglodytes*    Woodlands

This common resident species of deep woods would be expected along the slopes of Hylebos in winter, but has not occurred at the Gog-le-hi-te Marsh.





## SHRIKES (LANIIDAE)

Northern Shrike *Lanius excubitor* Regular

A very uncommon winter visitor from the Arctic. Hunts for a variety of birds, insects, and small rodents in the open spaces in the tidflats and surrounding open space. Has been recorded in Area 2 of the Tacoma CBC on 5 of the last 8 years, with as many as 4 individuals observed. It was seen twice at the Gogle-hi-te Marsh.

## STARLINGS & MIMICS (STURNIDAE)

Common Starling *Sturnus vulgaris* Regular

The first starlings occurred in Washington in 1945, and by 1956 winter roosts in the thousands were seen in Seattle (Hunn, 1982).

## VIREOS (VIREONIDAE)

Hutton's Vireo *Vireo huttoni* Woodlands

It can be expected along the slopes of Hylebos, and has been recorded in Area 2 of the Tacoma CBC. It is a resident species associated with mixed deciduous woods and extensive undergrowth.

Western Warbling-Vireo *Vireo swainsonii* Woodlands

This common summer breeding vireo is found along the slopes of Hylebos.

Solitary Vireo *Vireo solitarius* Probable

Solitary vireo breeds at Fort Lewis (*vide* Donald Norman).

Red-eyed Vireo *Vireo olivaceus* Probable

Bowles lists these as summer residents of Tacoma, with the Red-eyed as "extremely rare" (Bowles, 1922). These species breed in wooded areas.

## WOOD WARBLERS (PARULIDAE)

- Orange-crowned Warbler                      *Vermivora celata*                      Regular  
This is a common breeding warbler in brushy habitat, and an abundant migrant. It has only been recorded in the fall months at Gog-le-hi-te Marsh.
- Nashville Warbler                              *Vermivora ruficapilla*                      Probable  
It would be expected along the slopes of Hylebos in migration.
- Yellow Warbler                                  *Dendroica petechia*                      Regular  
It would be expected along the slopes of Hylebos and breeding at Gog-le-hi-te Marsh once the vegetation is older, and has historically bred in the Commencement Bay area (Bowles, 1922). It is an abundant wetland breeding species at Fort Lewis (*fide* Donald Norman).
- Yellow-rumped Warbler                      *Dendroica coronata*                      Regular  
This species is an abundant migrant in the Puget Sound lowlands, and has occurred at the Gog-le-hi-te Marsh. It breeds in coniferous forest in the Puget Sound.
- Black-throated Gray Warbler              *Dendroica nigrescens*                      Probable  
This is a summer nesting species in wet wooded areas, and probably nested along the Puyallup River (Bowles, 1922). It would be expected along the slopes of Hylebos in migration.
- Townsend's Warbler                              *Dendroica townsendi*                      Probable  
This species is a summer breeding species in the Puget Sound lowlands, but has not occurred at the Gog-le-hi-te Marsh. It occurs throughout the winter in sheltered areas with madrones and extensive undergrowth in open wooded areas. It breeds in wooded coniferous forest.
- MacGillivray's Warbler                      *Oporornis tolmiei*                      Probable  
Summer nesting occurs in the mountains and would be expected along the slopes of Hylebos in migration.

Common Yellowthroat                      *Geothlypis trichas*                      Regular  
This is a common breeder at the Gog-le-hi-te Marsh.

Wilson's Warbler                      *Wilsonia pusilla*                      Regular  
This is a common summer breeder in the Puget Sound lowlands, but only a few have been recorded at the Gog-le-hi-te Marsh, indicating that brushy habitat has not expanded large enough for breeding.

### TROUPIALS (ICTERIDAE)

Northern Oriole                      *Icterus galbula*                      Probable  
This summer nesting species in the Puget Sound lowlands would be expected along the slopes of Hylebos or at Gog-le-hi-te Marsh, but no records exist.

Red-winged Blackbird                      *Agelaius phoeniceus*                      Regular  
This is a common resident at the Gog-le-hi-te Marsh, presumably breeding.

Western Meadowlark                      *Sturnella neglecta*                      Regular  
This is an uncommon winter visitor, rare in the summer in King County (Hunn, 1982). It has been recorded at the Gog-le-hi-te Marsh.

Brewer's Blackbird                      *Euphagus cyanocephalus*                      Regular  
This abundant resident species is more associated with farmlands than the Red-winged Blackbird, but has been recorded at the Gog-le-hi-te Marsh.

Brown-headed Cowbird                      *Molothrus ater*                      Regular  
This is an abundant summer species in the Puget Sound lowlands, and has been recorded regularly at the Gog-le-hi-te Marsh.

## TANAGERS AND ALLIES (THRAUPIDAE)

Western Tanager                      *Piranga ludoviciana*                      Woodlands  
This summer breeding species is expected along the slopes of Hylebos in migration.

## WEAVERS & ALLIES (PLOCEIDAE)

House Sparrow                      *Passer domesticus*                      Regular  
This abundant semi-domesticated species nests near all human activities.

## CARDUELINE FINCHES (FRINGILLIDAE)

Pine Siskin                      *Carduelis pinus*                      Regular  
This abundant resident species, occurring more at higher elevations, occurs in the winter in all forested areas, and has been seen along the slopes of Hylebos.

American Goldfinch                      *Carduelis tristis*                      Regular  
This abundant resident of the Puget Sound lowlands breeds in open fields in the tideflats, and occurs all months at the Gog-le-hi-te Marsh.

Purple Finch                      *Carpodacus purpureus*                      Woodlands  
This resident species of coniferous forest would be expected along the slopes of Hylebos.

House Finch                      *Carpodacus mexicanus*                      Regular  
This species has expanded its range into the Pacific Northwest, and now occurs in all areas associated with human activity.



along the wooded slopes of the Hylebos, as well as at Gog-le-hi-te Marsh (Jensen, 1992).

Golden-crowned Sparrow      *Zonotrichia atricapilla*      Regular

This wintering species of brushy habitat has been seen along the wooded slopes of the Hylebos, as well as at Gog-le-hi-te Marsh (Jensen, 1992).

Dark-eyed Junco      *Junco hyemalis*      Regular

This resident common species of brushy habitat has been seen along the wooded slopes of the Hylebos, as well as at Gog-le-hi-te Marsh. It breeds in woodlands, so is less common in summer.

Savannah Sparrow      *Passerculus sandwichensis*      Regular

This is a common breeding species in grasslands in King County (Hunn, 1982), and is a common species in summer at the Gog-le-hi-te Marsh, and is presumed to be breeding.

Chipping Sparrow      *Spizella passerina*      Probable

This species has been recorded as a common breeding species in the Puget Sound lowlands (Bowles, 1922), but are decidedly rare today (Hunn, 1982). Chipping sparrows being very common (*vide* Donald Norman).

Vesper Sparrow      *Pooecetes gramineus*      Probable

This species has been recorded as a common breeding species in the Puget Sound lowlands (Bowles, 1922), but are decidedly rare today (Hunn, 1982).

Rufous-sided Towhee      *Pipilo erythrophthalmus*      Regular

This resident common species of brushy habitat has been seen along the wooded slopes of the Hylebos, as well as at Gog-le-hi-te Marsh.

Black-headed Grosbeak      *Pheucticus melanocephalus*      Woodlands

This summer breeding species is expected along the slopes of Hylebos in migration.

Lazuli Bunting

*Passerina amoena*

Probable

Listed as a summer resident by Bowles (1922), and rare in summer in King County (Hunn, 1982), it is more common east of the Cascades. It has recently nested in the Kent Valley (*vide* Thais Bock).

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