

## FIELD OBSERVATIONS OF BULLFROG (*RANA CATESBEINA*) PREY IN BRITISH COLUMBIA

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The bullfrog (*Rana catesbeina*) is British Columbia's largest anuran and spends most of its life in the water where it breeds and hunts. It is well known that adult bullfrogs are voracious predators and will eat virtually anything that moves and can be stuffed into their mouths. Their diet in North America includes snakes, fishes, frogs, salamanders, small turtles, small mammals, young waterfowl, marsh birds, songbirds, crayfishes, and a wide variety of aquatic invertebrates. They are also cannibalistic, eating both their own tadpoles and other adults and juveniles (Bury and Whelan 1985; Conant and Collins 1991; Albright 1999).

The seasonal and regional diet of the bullfrog in British Columbia is unknown. General prey groups mentioned for the province include young birds, mice, fishes, and smaller bullfrogs (Green and Campbell 1984). The purpose of this note is to document two field observations of prey species and list other animals known to be preyed upon by the bullfrog in British Columbia.

While photographing the introduced slider (*Trachemys scripta*) at Jerry Sulina Park in Maple Ridge on 29 July 2004, a juvenile Solitary Sandpiper (*Tringa solitaria*) landed on the water plants and began foraging (Figure 1). The rural park includes a small meandering stream with permanent, but shallow, backwater ponds that contain small patches of the white water-lily (*Nuphar odorata*), and floating logs and wooden platforms. The sandpiper was feeding on snails and large flying insects on the underside of curled water-lily leaves. The shorebird was watched feeding for about 15 minutes while it moved from the centre of the pond towards the shore where it was within range to photograph. While the Solitary Sandpiper was slowly stalking an insect an adult bullfrog suddenly grabbed the bird and disappeared underwater. I waited unsuccessfully for about 35 minutes hoping that something might appear on the nearby water surface. I rechecked the patch of water-lilies the following morning but found nothing but more adult and juvenile bullfrogs lurking beneath the cover of water-lily leaves.

On 14 August 1996, Glenn Ryder noticed a Rufous Hummingbird (*Selasphorus rufus*) flying low over the water surface at Little Sumas Lake (Goose Lake) near Abbotsford.



**Figure 1.** This juvenile Solitary Sandpiper met an unlikely fate when captured by an adult bullfrog seconds after this photo was taken. Jerry Sulina Park, Maple Ridge, BC. 29 July 2004 (R. Wayne Campbell).

The bird, likely a female or juvenile, was buzzing back and forth when suddenly the lake's surface broke into a splash and a large bullfrog, with split second timing and mouth wide open, grabbed the hummingbird from the air, plunged back into the water, and vanished. The bullfrog leapt at least 0.61 m out of the water to capture the bird.

The Wildlife Data Centre databases, housed by the Biodiversity Centre for Wildlife Studies in Victoria, include a wide variety of bullfrog prey previously unpublished from throughout the Lower Mainland, Sunshine Coast, and southeastern Vancouver Island. These include: red-legged frog (*Rana aurora*) and green frog (*Rana clamitans*) adults, juveniles, and tadpoles, bullfrog tadpoles, common garter snake (*Thamnophis sirtalis*) young Canada Goose (*Branta canadensis*) goslings, Wood Duck (*Aix sponsa*), Mallard (*Anas platyrhynchos*), Gadwall (*Anas strepera*), and Blue-winged Teal (*Anas discors*) ducklings, Virginia Rail (*Rallus limicola*) chicks, American Coot (*Fulica americana*) chicks, Spotted Sandpiper (*Actitis macularia*) chicks, Bushtit (*Psaltriparus minimus*), Marsh Wren (*Cistothorus palustris*), flycatcher species, European Starling (*Sturnus vulgaris*) fledgling, Cedar Waxwing (*Bombycilla cedrorum*) juvenile, American Robin (*Turdus migratorius*) juvenile, Yellow Warbler (*Dendroica petechia*), Common Yellowthroat (*Geothlypis trichas*), Song Sparrow (*Melospiza melodia*)

juvenile, Dark-eyed ("Oregon") Junco (*Junco hyemalis oreganus*), Red-winged Blackbird (*Agelaius phoeniceus*), and Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*) newly fledged young, Pine Siskin (*Carduelis pinus*), Townsend's vole (*Microtus townsendii*), Pacific water shrew (*Sorex bendirii*), and domestic cat (*Felis catus*).

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#### **About the Author**

Wayne recently co-authored the book *Birds of the Raincoast – Habits and Habitats*, printed by Harbour Publishing.

Glen is an active field naturalist in the Fraser River Valley.