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## Leucistic Great Blue Heron (*Ardea herodias*) in British Columbia, Canada, with comments on white and blue groups

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### Abstract

A single leucistic adult Great Blue Heron (*Ardea herodias*) in British Columbia, Canada is described.

*Key words:* *Ardea herodias* fannini; Great White Heron; herodias group; occidentalis group.

### Introduction

Leucism is a condition caused by a reduced deposition of pigment to the feathers (Lucas and Stettenheim 1972). Birds exhibiting leucism carry white plumage or patches of white feathers and have normal colored eyes (Cooke and Buckley 1987). Leucism is widespread but occurs in low frequency among many taxa including ardeids. A leucistic Green Heron (*Butorides virescens*) was reported from California (Garrett 1994) and there are photographs of what appear to be leucistic Great Blue Herons (*Ardea herodias*) on the world wide web.

### Results

We photographed an adult Great Blue Heron with

some leucistic plumage in Departure Bay, Vancouver Island, British Columbia, Canada on 1 March 2011 (Fig. 1). The bird had a white crown and forehead, and plumes over the back typical of an adult Great Blue Heron (Butler 1992). The wing coverts and inner secondary feathers were mostly white. The primaries were pale grey similar to the back. The usually black occipital plume had flecks of white feathering. The eye was a normal yellow color.

The leucistic Great Blue Heron on the British Columbia coast is part of the subspecies *A. h. fannini* that resides year-round along the seashore between Washington State and southern Alaska (Butler 1992). We have watched thousands of herons throughout the subspecies range (Butler 1997). This is the first instance of leucism that we are aware of for this subspecies.



Figure 1. Partial leucistic Great Blue Heron in Departure Bay, British Columbia, Canada.

## Discussion

The Great Blue Heron occurs as a blue (*herodias*) group and a white (*occidentalis*) group (Butler 1992). Several other species have a dark and white phase, e.g., Northern Fulmar, *Fulmarus glacialis*, Snow Goose *Anser caerulescens*, Barnacle Geese *Branta leucopsis* (Cooke and Buckley 1987, Hatch and Nettleship 1998, Owen and Skimmings 1992). The blue and white phases of the Snow Goose are determined by the presence of a single gene acting on plumage pigmentation and maintained by assortative mate selection (Cooke *et al.* 1976). Leucism in Great Blue Herons might also operate on a single gene that is expressed as white and blue heron groups.

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