

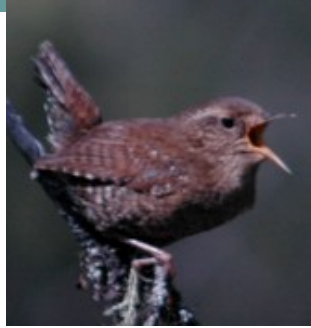


"Our environment is our future"

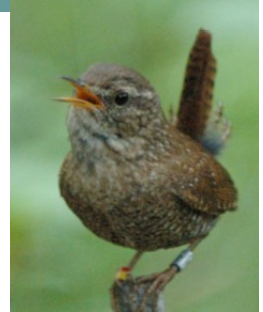
# RESEARCH COLLOQUIUM SERIES

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Pacific Wren



Winter Wren

**Friday**

**Nov. 27, 2009**

**3:30 - 4:30**

**LECTURE THEATRE**

**7 - 152**

LIGHT REFRESHMENTS  
SERVED AT 3:20 PM

## The great Canadian suture zone: a natural laboratory for the study of speciation

Speciation usually begins in allopatry, yet can best be studied after divergent forms have expanded into sympatry. In the mountains of BC and Alberta, there are many secondary contact zones between closely related western and eastern taxa. By studying multiple taxon pairs in this suture zone, we can determine 1) what traits have diverged between western and eastern taxa during their time in allopatry, and 2) whether the divergent taxa are reproductively isolated and the role that various traits play in that isolation. Case studies generally fit into two categories. First, winter wrens provide an example of reproductively isolated cryptic species that are highly divergent in song and genes, but similar ecologically and morphologically. Second, yellow-rumped warblers provide an example of morphologically divergent forms that hybridize extensively where they meet. Plumage patterns and several small parts of the genome show steep and concordant clinal change across the hybrid zone, whereas morphometric traits and most parts of the genome show broader clines or no change between the forms. In these examples of boreal taxon pairs, there is little evidence for habitat-based natural selection playing a major role in speciation. Rather, sexual selection and adaptation to distinct migratory routes appear to have played more important roles.