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# Harlequin Duck Ecology in Jasper National Park

Update

FRI Harlequin Duck Workshop  
25 Jun 2014  
Hinton, AB

John Wilmshurst



Parks  
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Canada

Canada

# Historical context

- Hunt, W. A. 1998. The ecology of harlequin ducks, *Histrionicus histrionicus*, breeding in Jasper National Park, Canada Simon Fraser University, Burnaby, British Columbia, Canada.
  - 87% of encounters between. Ducks and Rafts led to displacement
- 1999 Maligne River closed to in-stream use, a decision supported by Appeals court ruling
  - Reconsider decision with compelling, publicly supported scientific evidence to the contrary
- LeBourdais, S. V., R. C. Ydenberg, and D. Esler. 2009. Fish and harlequin ducks compete on breeding streams. *Canadian Journal of Zoology* 87:31-40.
  - Ducks displaced by fish that change invertebrate behaviour
- JNPPROA have engaged Dr. Ydenberg to initiate study in Jasper looking at invert abundance in Maligne R.
  - Ongoing
  - Parks Canada has proposed a study design that would satisfy the need for scientific knowledge contributing to reconsidering the closure



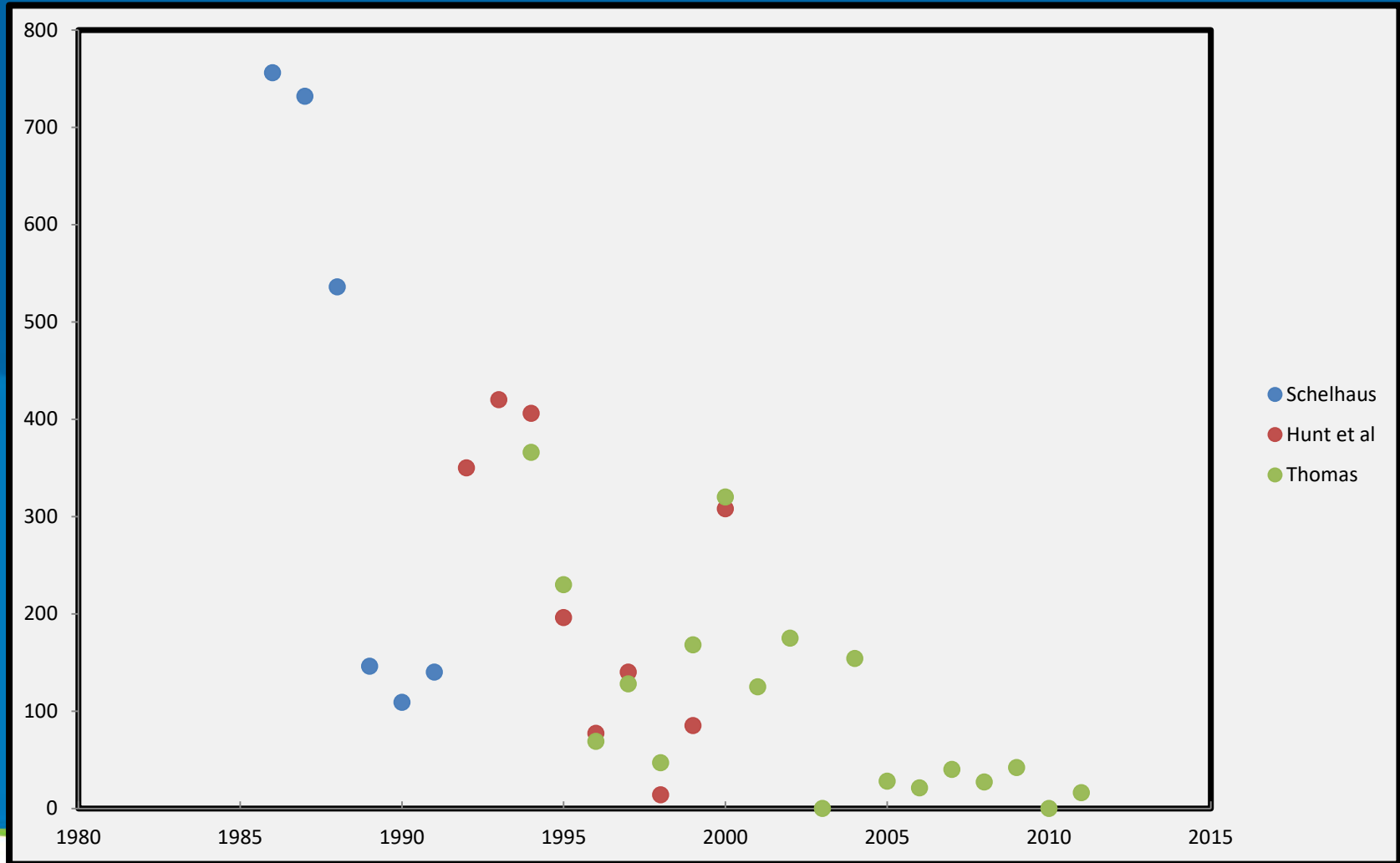


# MLO total harlequin usage (duck days)

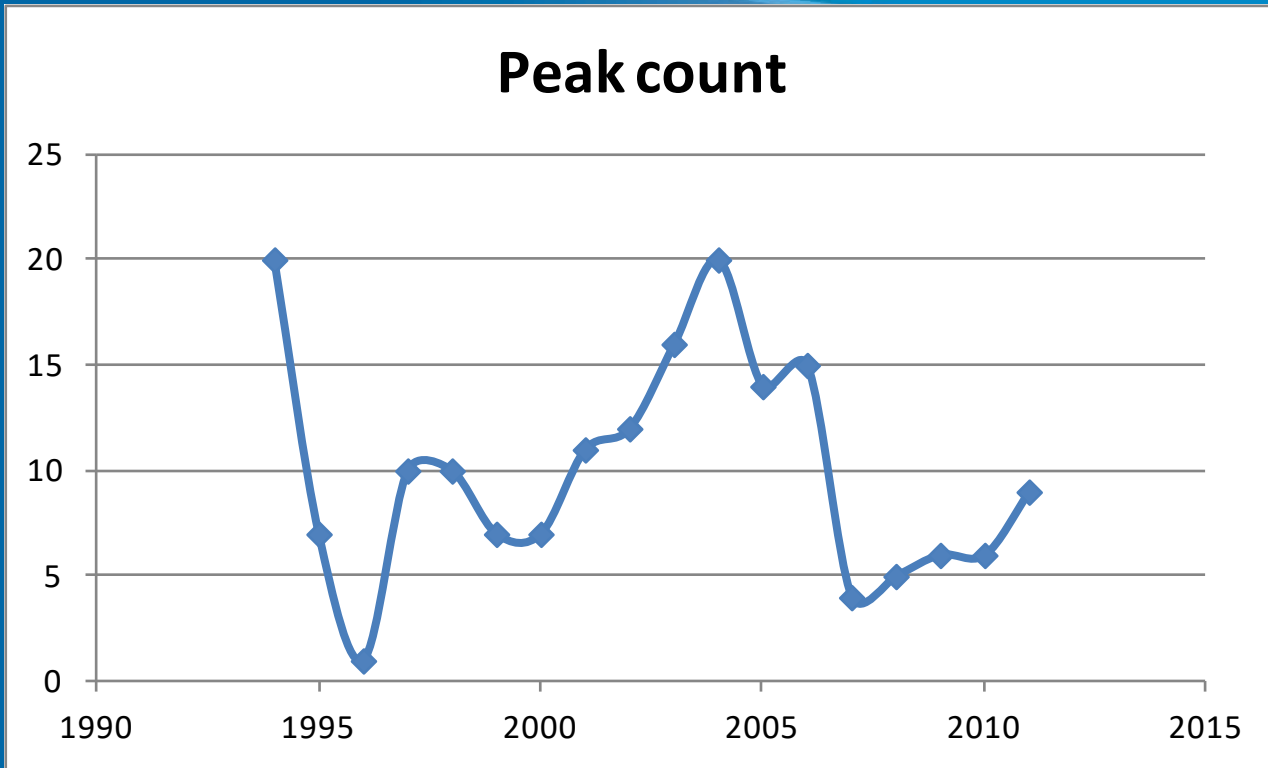
1987

1993

1999



# Maximum Single Observation HADU Count in the Maligne Valley 1994 to 2011



Data from Schelhaus with contributions from Ruddy.



# Current Situation

- Parks Canada does not formally survey HADU populations in the park
  - We note observations
- Ydenberg study is still ongoing, with no activities in park planned
- Mid-Maligne River remains closed to in-stream use
- JNP undertaking a review of our ecological and visitation environment in the Maligne Valley
- JNP would be open to participating in studies that consider the regional context of HADU ecology
  - No \$

