INTRODUCTION & BACKGROUND

Red-shouldered Hawk (*Buteo lineatus*) and Merlin (*Falco columbarius*) are Michigan-listed as Threatened (legally protected). Both species have been historically documented nesting within the Upper Peninsula of Michigan. Evidence of either species nesting near the proposed CR 595 route was not observed during breeding bird surveys conducted by King & MacGregor Environmental, Inc. (KME) in 2008 (KME 2009) and along potential routes in 2010. The call-response survey described in this report was conducted to augment previous KME survey data and to help determine if either raptor species currently utilize potential breeding/nesting habitat near the proposed CR 595.

METHODS

Prior to conducting field assessments, KME reviewed published information pertaining to the potential presence of either raptor species within the northwestern region of Michigan’s Upper Peninsula (Brewer et al. 1991, Cooper 1999, Cuthrell 2002). A Michigan Natural Features Inventory (MNFI) database query was conducted to identify locations within the region where either species may have been previously documented (MNFI 2011). Landscape features within the area of investigation were reviewed using Michigan Geographic Data Library (MGDL) aerial photography and other digital mapping data (MDIT 2011). KME adapted a call-response survey method based upon the protocol developed by the Wisconsin Bird Conservation Initiative (WBCI) which is used annually and successfully throughout northern Wisconsin. The KME survey protocol was within the guidelines specified by the MNFI for locating nesting sites of both species.

The first round of the Red-shouldered Hawk call-response breeding/nesting survey was conducted by two KME biologists on April 26-28, 2011 at each of 39 survey point locations aligned along the entire length of the proposed CR 595 route. Locations were typically spaced approximately 0.5 miles from each other within a variety of habitats. All survey points had been established during general breeding/migratory bird surveys conducted in previous years. A handheld Foxpro Spitfire digital caller was utilized to broadcast a series of conspecific territorial calls in multiple directions at each survey point. Each series of raptor calls was followed by a quiet listening period. Temperature and wind speed were measured at each survey point using handheld digital weather instruments. Time, date, weather conditions, and presence of incidental, non-target raptor species were recorded.

The second round of the 2011 Red-shouldered Hawk call-response survey was conducted during May 17. Eight Red-shouldered Hawk call-response survey points were selected from the original 39. These points were located within all areas that appeared to be potentially suitable nesting habitat for this species. In addition, seven call-response survey points were selected for Merlin only in areas that were potentially suitable habitat for nesting Merlins. The first round of the Merlin call-response survey was conducted on May 17, 2011 and the second round was conducted in reverse order on May 18. Potentially suitable habitat for either Red-shouldered Hawk or Merlin was located primarily north of the Dead River, although areas near the Second River were also surveyed.
RESULTS AND DISCUSSION

No Red-shouldered Hawks or Merlins were detected along the proposed CR 595 route during the Spring 2011 call-response breeding/nesting surveys. Five other raptor species were incidentally documented along the route during the surveys. These were: (1) Bald Eagle (*Haliaeetus leucocephalus*), (1) Barred Owl (*Strix varia*), (1) Broad-winged Hawk (*Buteo platypterus*), (1) Coopers Hawk (*Accipiter cooperii*), (3) Northern Harrier (*Circus cyaneus*), and (1) Sharp-shinned Hawk (*Accipiter striatus*). No raptor nests associated with any species were observed. The apparent lack of nesting Red-shouldered Hawks or Merlins near the proposed CR 595 route may be at least partly explained by the fact that the region is located at the edge of the geographic range for both species (Cooper 1999, Cuthrell 2002).
REFERENCES


