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Murder She Wrote: Death and Drama in Nesting Woodpeckers

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Murder She Wrote: Death and Drama in Nesting Woodpeckers

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Introduction

- Woodpeckers serve as primary cavity excavators in fire-dominated forests.
- Secondary cavity users (SCU's) rely heavily on cavities excavated by woodpeckers.
- Woodpecker species are declining, and some are now locally threatened. Management needs answers.
- How is woodpecker reproductive success impacted by the behavior of woodpeckers, SCU's, and predators?



Figure 2: Camera setup mounted away from the nest.

Methods

- Total of 64 nests (34 from 2015, 30 from 2016) from two study areas in the Okanogan-Wenatchee forest in the Eastern Washington Cascades (Fig. 1).
- Monitored nest with Panasonic camcorders (model HC-V160) mounted 15-60 m from the nest (Fig. 2). Each nest was recorded for two, 24-hour periods a week. 15,000 total hours of footage (5,000 from 2015 and 10,000 from 2016).
- Scored two-hour-long videos of nests for presence and behavior of woodpecker parents, SCU's, and predators.



Figure 3 (left): Long-tailed Weasel taking a White-headed Woodpecker nestling as the male woodpecker tries to protect its chick.

Figure 5 (right): Still-shots of video footage from the Angel Mid Hawo nest on 5/26/16. Hairy Woodpecker nestling (in red) fledges, and within four minutes, Western Bluebirds (in blue) begin moving in.

Results

- Have watched footage from 34 nests (20 from 2015, 14 from 2016), approximately 260 hours (160 from 2015, 100 from 2016).
- 26 nests fledged (6 from 2015, 20 from 2016). 15 nests failed (5 from 2015, 10 from 2016). Cause of failure known for 4 nests (2 from each year), one of which was a Long-Tailed Weasel (Fig. 3).
- One pair was shot. Another pair moved in within several hours.
- Pair of bluebirds moved into vacated cavity within 4 min. of fledging (Fig. 5).



Figure 6: An example of communal nest defense as both the White-headed Woodpecker (white) and Northern Flicker (red) defend the 1304 Whwo nest from a the Long-tailed Weasel (yellow).

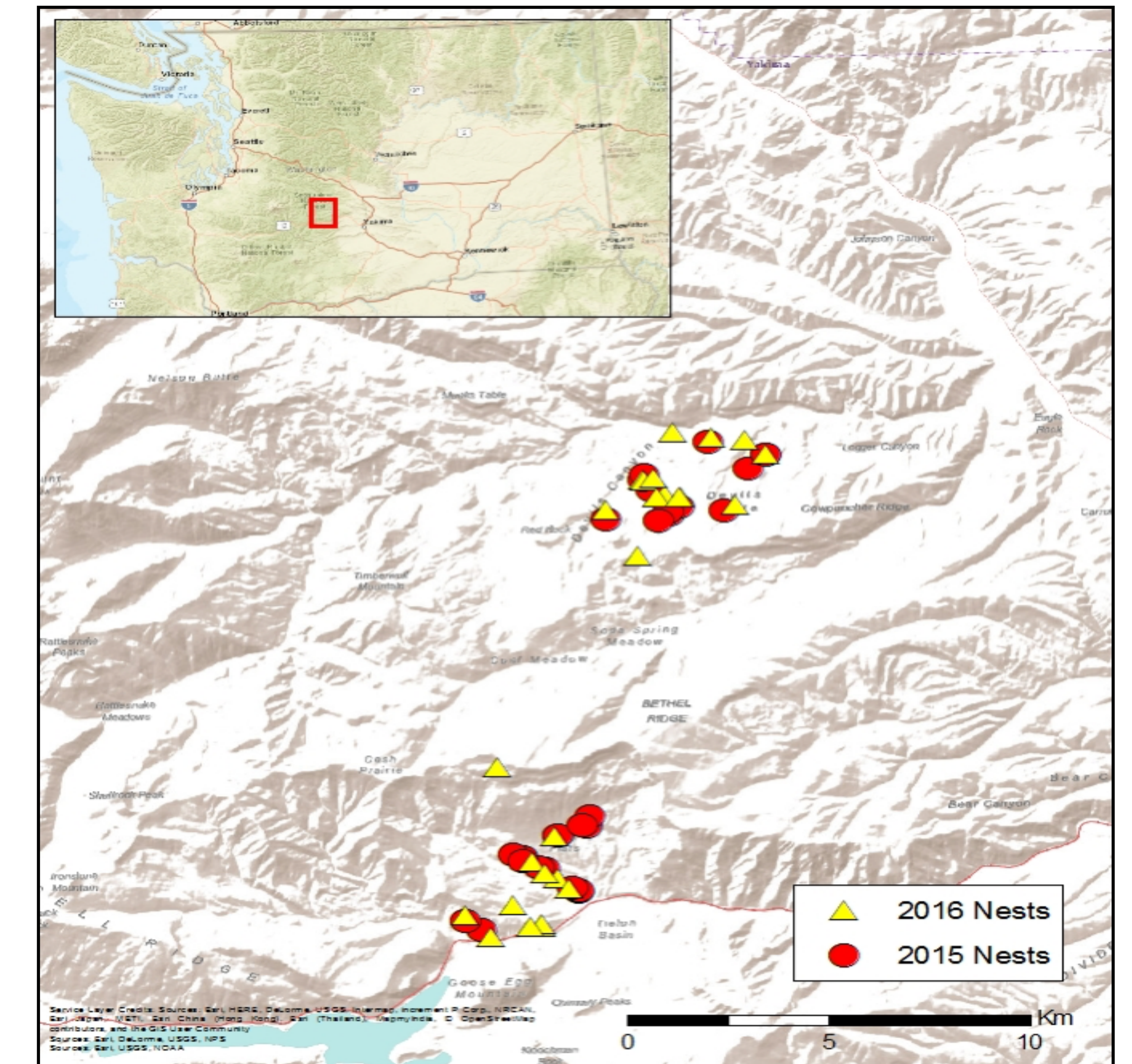


Figure 1: Location of filmed woodpecker nests.

Conclusions

- Nest availability is limited, so SCU's use a variety of cues to determine vacancy.
- Woodpeckers that nest close to active nests and old cavities may increase nesting success through communal defense (Fig. 6).
- Distribution of snags drives behavior and subsequently nesting success of woodpeckers. Management should increase burns.

