**Title:** Near-real time disturbance monitoring using Sentinel-1 Radar

**Author**: John Kilbride - john.b.kilbride@gmail.com

**Co-Authors (Name - email - institution)**:

Robert Kennedy –

David Saah –

Ate P –

Biplov -

Quynn –

**Abstract Text:**

The Prey Lang Wildlife sanctuary is important as fuck.

Illegal logging in Prey Lang is bad.

Local communities are pissed + greenies.

We need a near real-time alert system and we don’t have one which meets the following criteria:

1.) Can ensure regular coverage over the study region.

2.)…

How do we deal with the above?

1.) Use sentinel 1 imagery to get around the problems assocaqtied with optical imagery.

2.) .

Disturbances were captured using a fully convolutional neural network (FCNN) which was used to process new . Our network The FCNN was pre-trained using GLAD alerts to reduce the amount of labeled reference data needed to train the network. This pre-training procedure can be adapted to many contexts where there are existing predictions (i.e., maps) of the response variable but few ground truth observations and demonstrates a pre-training procedure suited for real-world conditions.