Cal-IPC LCC update

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We are developing models of the projected range for invasive plants in California, adding them to our new CalWeedMapper website (calweedmapper.calflora.org) where land managers can generate reports showing results for all species in their area. We have completed models for approximately 50 species and will be adding more this spring. So far we have been using the downscaled CCCMA and Hadley GCMs for 2050. However, in the next couple of months we will be expanding to a larger set of GCMs thanks to partnerships with Climate Central in Palo Alto and Healy Hamilton. We will be able to display our results using an ensemble method that compares multiple climate scenarios. Before posting our modeling results to CalWeedMapper, we show them to invasive plant experts to ensure that the results make sense to those who know the plants’ biology.

We are working with local stakeholders to use the results on CalWeedMapper to develop strategic management plans for surveillance and eradication of invasive plants. So far, we have worked with a five-county group in the Central Sierra and with the Cache Creek Watershed Forum in Yolo and Lake Counties. We will be applying the same methods to working with National Parks.

We have just obtained the ACE-II (Areas of Conservation Emphasis) layers from the California Department of Fish and Game for CalWeedMapper. This will allow us to see where invasive plants overlap areas with high conservation value, an important step in working with the National Park Service and other land managers.

Attached are three screenshots from CalWeedMapper showing maps for medusahead (*Taeniatherum caput-medusae*). Data on distribution by USGS quad is from a related project. The projected range (green) is part of our LCC work. This model shows projected suitable range in 2050. Darker green indicates a higher probability that an area will have suitable climate. A fourth map shows the distribution for spotted knapweed (*Centaurea maculosa*) overlaid with the Areas of Conservation Emphasis.