

Project Update: November 2010

After consolidating the data collected in the field, which included more than a million vegetation data points, 32 000+ insect samples, more than 160km worth of walked bird count transects and over 400 nests found and monitored to completion, four papers have been prepared looking at vegetation structure and diversity, faunal responses, avian reproductive responses and assessing ecological integrity using biodiversity indices. What this work shows is how intensive grazing and/or frequent burning of grasslands affects the plants and animals that are trying to survive in these grasslands. Among these plant and animal species are many which are specialists and endemic to South Africa's grasslands. I have shown that some species such as the beautiful little yellow-breasted pipit (*Anthus chloris*), which is classified as Vulnerable by the IUCN, is very sensitive to heavy stocking as well as frequent burning and if South Africa does not sustain areas under conservation-friendly management this species is likely to face ever increasing risk of extinction. Further work will focus on using this as an indicator of well managed grasslands such that farmers can use the presence of this bird as an indication of their conservation-friendly management.

Finally, this work has allowed me to develop indices of ecological integrity for use by conservation organisations in the assessment of grassland areas. Grassland assessment has been contentious for many decades and develops of indices such as these are critical for assessing landscape intactness and the retention of ecological services provided by grasslands.