

# CyberTracking emerging invasive alien species – field trials in KZN

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**Early Detection and Rapid Response Programme**  
*for emerging invasive alien plants*



# The EDRR programme's mandate

- Facilitate eradication of NEMBA category 1a species ~34 taxa
- ➔ if investigations show this is possible and desirable
- Assess all (~93 taxa) species on Surveillance List
- Co-ordinate surveillance for new instances of naturalisation and manage records
- Advisory role for national management strategies for species that have been worked on, and on taxa not yet introduced where we could contribute general insights
- Build capacity (Research and Implementation)

# Programme objectives

1. Co-ordinate surveillance of emerging invasive alien plants.
  - Capacity for identification and verification
  - Co-ordinate rapid response efforts
2. Co-ordinate risk assessment
3. Co-ordinate effective information management systems
4. Initiate and execute relevant research
5. Advocacy and awareness raising programme
6. Monitoring and evaluation programme
7. Ensure effective and compliant management

# Rapid Response activities in KZN

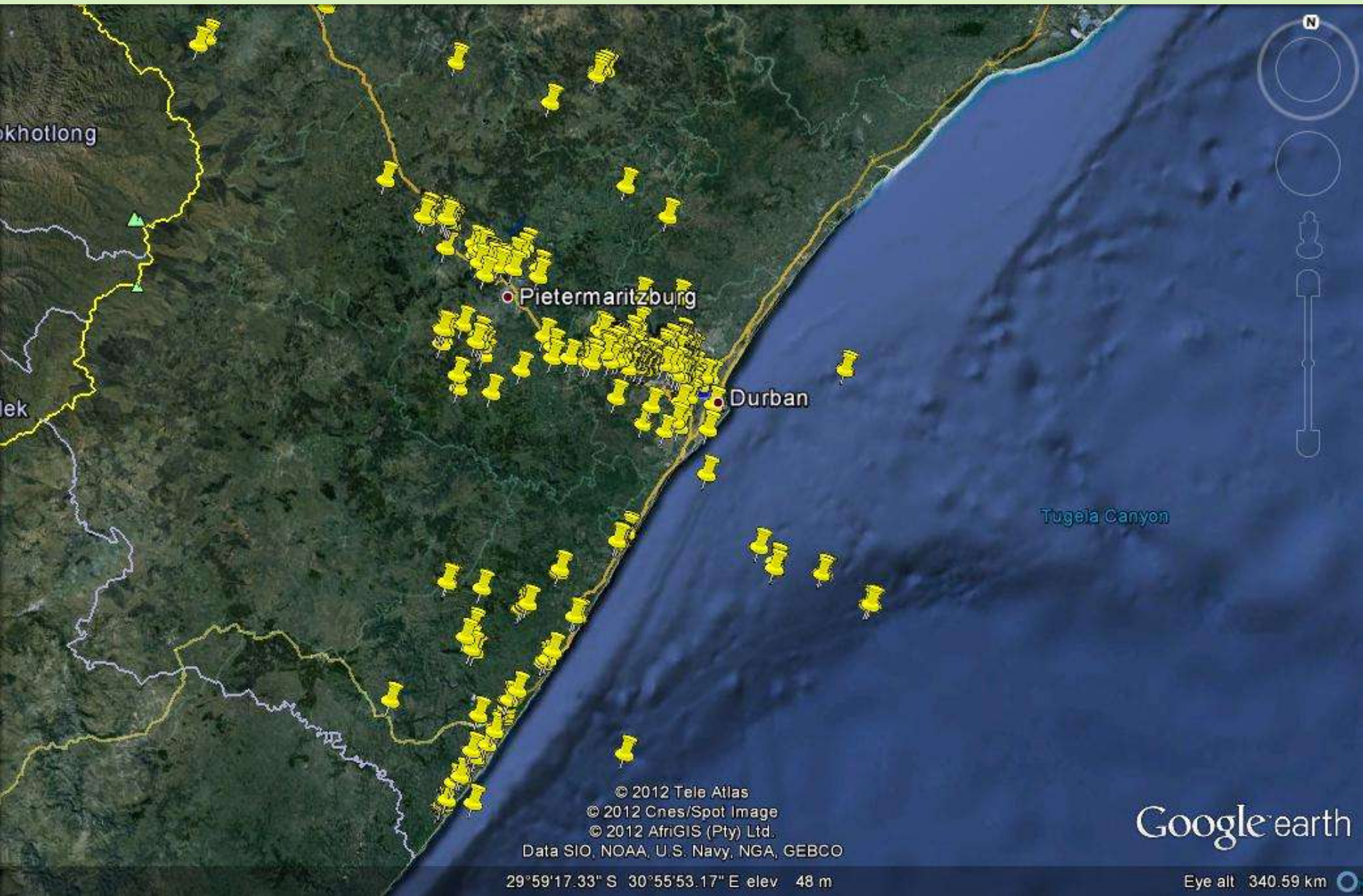


Pompom weed



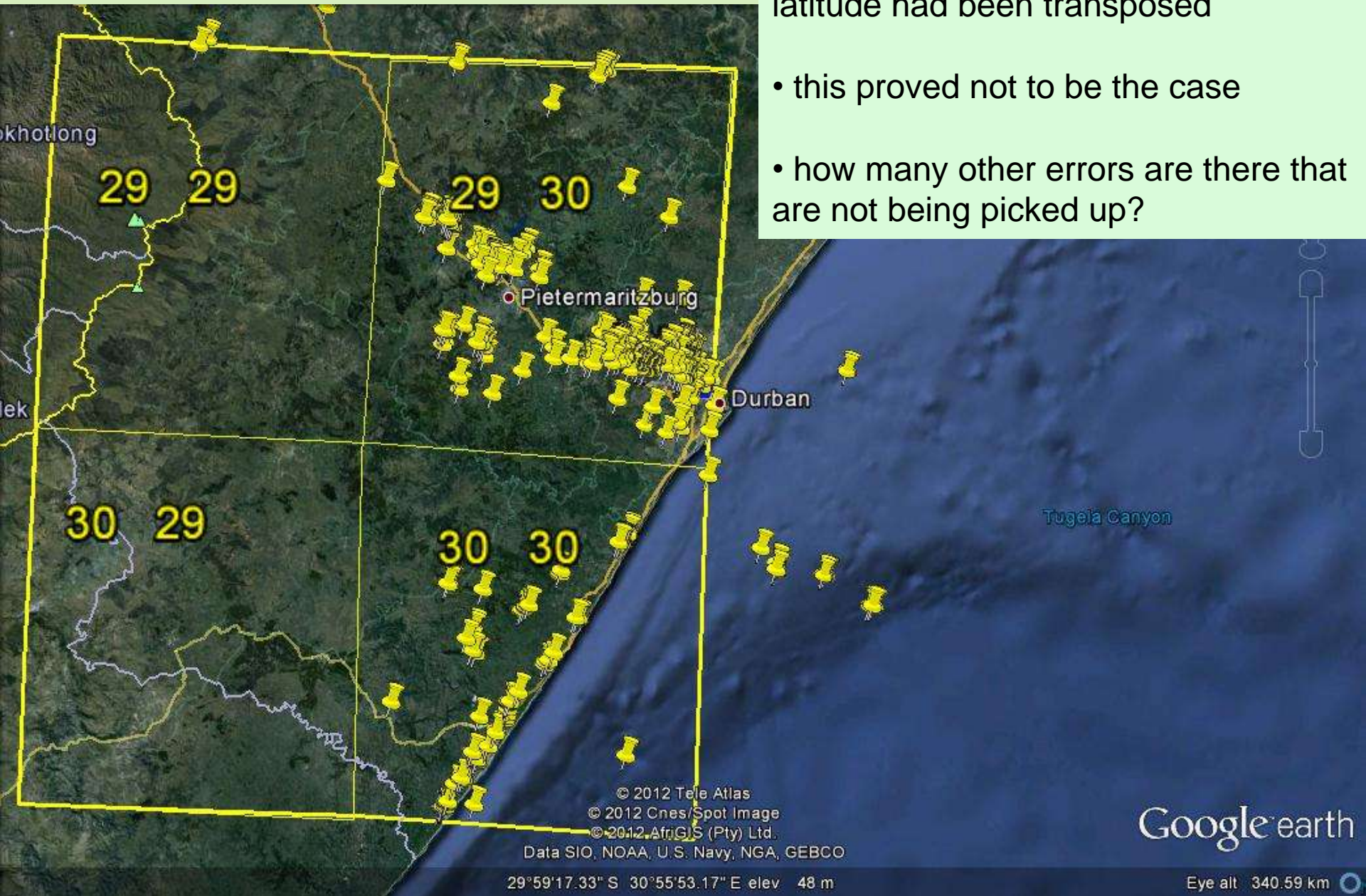
Formosa lily

# Pompom weed and Formosa lily locality data from previous years



Suspected that the longitude and latitude had been transposed

- this proved not to be the case
- how many other errors are there that are not being picked up?



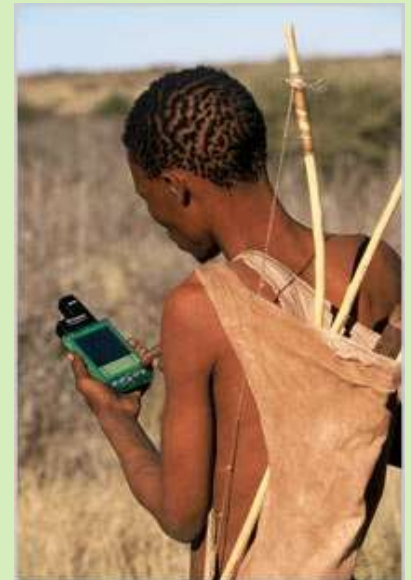
## Errors can occur:

- getting the GPS to work correctly
- copying from GPS to field note book
- muddling up degrees minutes and seconds with decimal degrees
- copying from field note book to report sheet
- contract manager copies into Excel

This means at least five possibilities of human error

# For Field Data Collection

- EDRR was already involved in developing a photographic key for CyberTracker. To date there is pictorial key of ca.700 species of IAPs in S.A.
- CyberTracker can work on many hand held devices (Trimble units used for this project)
- Designed to enable users with no computer skills to capture data rapidly and accurately
- Trials were implemented in KZN.



CyberTracker requires touch screen support

CyberTracker not an android application yet – funding is sought for this

CyberTracker software is free as are the applications developed for Early Detection & Rapid Response programme

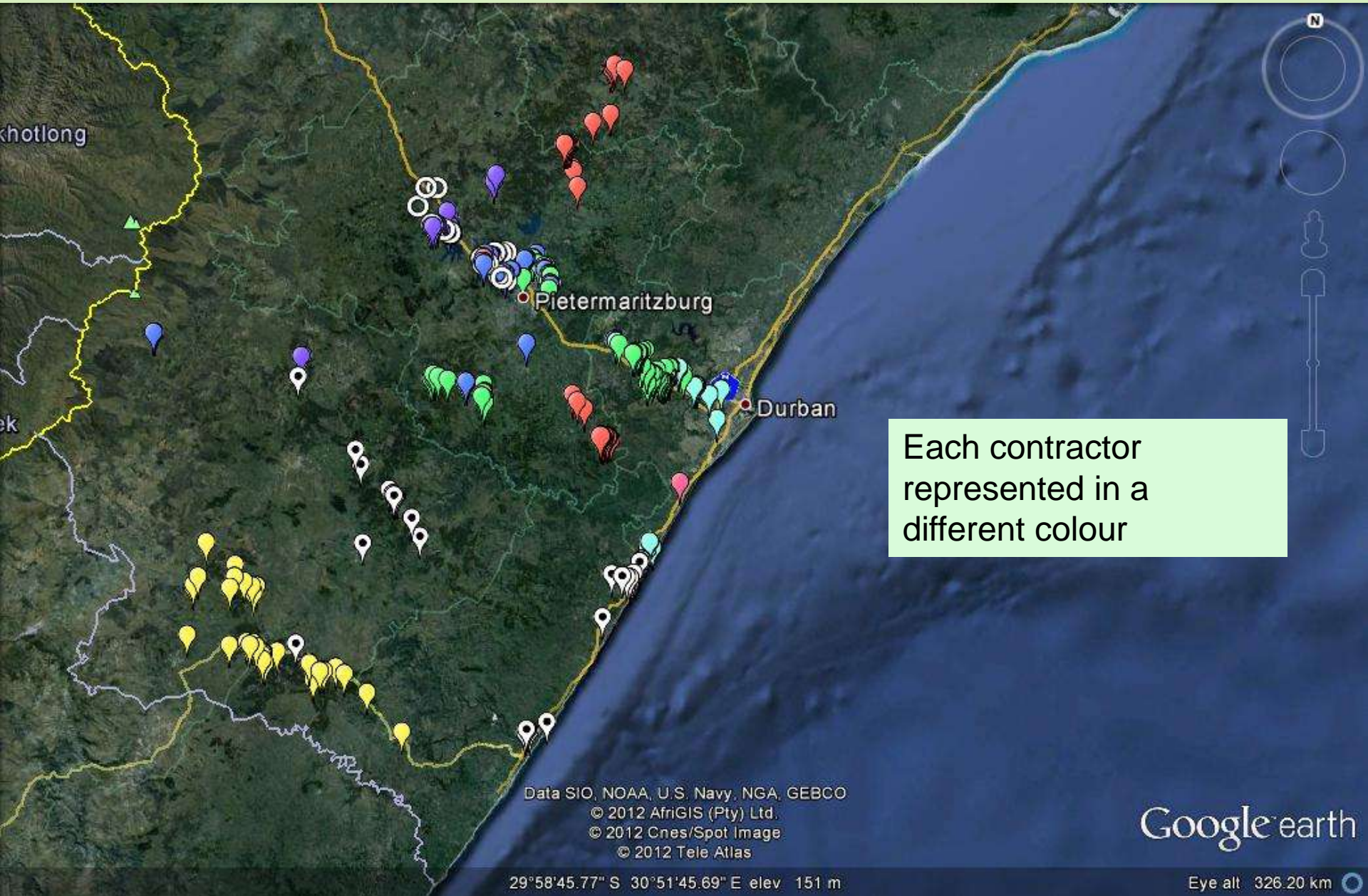




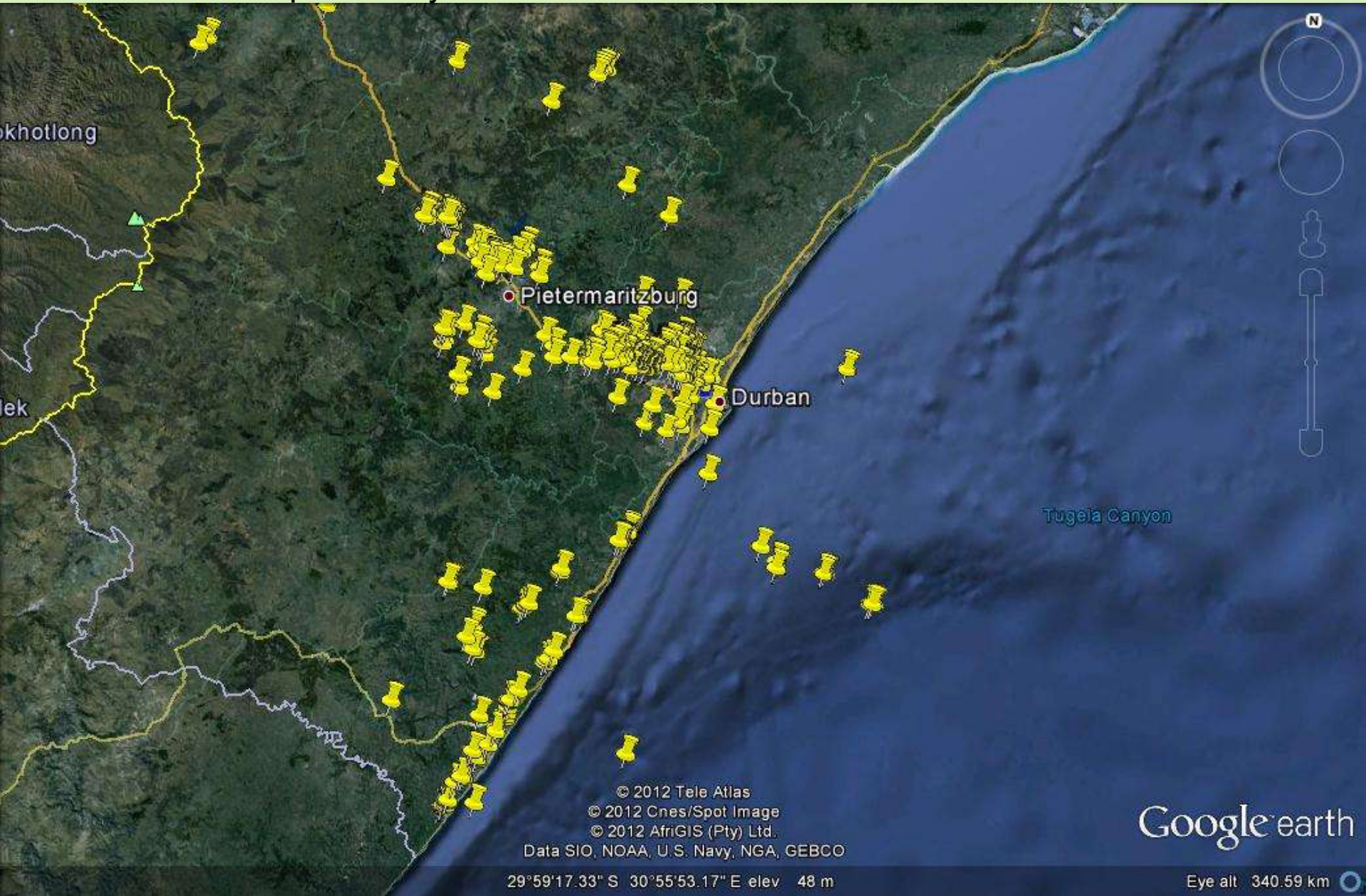
Training of contractors to use hand held device and CyberTracker



# First month's data using CyberTracker 2012



# Reminder of previous years' data



# Benefits

- GPS Data is collected and stored – no human error
- Includes date and time
- Accuracy

## Additional benefit

Assists with monitoring of contractors as the date, time and GPS locality are recorded simultaneously – route can be tracked

## The future

Volunteers can send pictures for identification and collect locality data

When funding sourced, software will be converted to work on Android Smart Phones

## Citizen Science

Enlisting the help of volunteer “spotters” like CREW, Mountain Club, BotSoc members



Using their own smartphones and CyberTracker software (free downloads)



Or colleagues doing field work

e.g. People in this room

## Acknowledgements:

Jerome Sullivan for tweaking the software, and giving us locality data that we could plot in Google Earth

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