

1. CONCLUSION AND FUTURE WORK

While this investigation has not proved I³S to have as high a success rate when testing with *G. camelopardalis* as it has with other species; this was a small investigation, with limited data set, and it seems very worthwhile to continue data collection to keep testing the program with.

There are still approximately another 80 giraffe on ISIS records in the UK alone (2011) that could be entered onto the I³S database from around the UK; and as mentioned the task of data collection will be considerably easier in the summer months. This would mean a complete data set of over 100 individual giraffe, which would be more persuasive in future tests.

Photo identification software is still a new technology and is continuing to improve as different models are created with specific species in mind. Until the technology catches up with the conservation need, data collection can continue, and with giraffe, *G. camelopardalis* having a lifespan of approximately 20-25 years (Dagg & Foster, 1976), those images will still be useful for many years.

When considering the costs of other applications such as GPS, a free software such as I³S, which produces very nearly significant data, which can be gathered through free volunteering, as the sub-optimum testing showed, this form of monitoring is worth investigating further.

Future work will include the continuation of data gathering, both from in situ and ex situ *G. camelopardalis* of all ages, (sub) species and genders as not only will this build a data base of giraffe images, which can be used with any software program in the future, but will also increase the chances of returning statistically accurate results.

Since the release of I³S, Jurgen and Reijns (2007) have developed I3S Contour; for use with tail flukes of whales and is currently working on I3S Pattern; for use with light and dark patterns, as with the great white shark, *Carcharodon carcharias* (Jurgen & Reijns, 2007). I³S Pattern may have much greater success for use with giraffe when photographed in optimum conditions. This data set can be used to test that program, possibly with a more successful outcome.

By altering the I³S software to use a selection tool as seen in Photoshop software, it is feasible to make a fingerprint in I3S by selecting this tool, and clicking on the patches of the giraffe, so the tool can cling to the outline of the patch, as it distinguishes the light background from the darker patch. This could be a very successful identification tool, and minimise the limitations of working in 2D.

DOMINIQUE RHOADES THESIS 2013 - DO NOT PLAGAIRISE