Notes for Macintosh Users

Notes of March 2018

The Mar 25, 2018 release of *GenAlEx 6.51b1 xlam* representing a beta release of the forthcoming *GenAlEx 6.51*, offers our new *QDiver* option for codominant data with a hierarchical regional structure, and other minor bug fixes. Recent tests indicate that with each release of Excel 2016, Visual Basic for Applications (VBA) functionality on the Macintosh is increasingly being improved by Microsoft. Consequently, most GenAlEx options can now be run in GenAlEx 2016 via the Ribbon, although some minor Dialog box and Ribbon button image issues remain. These minor, mostly cosmetic issues, have yet to be fully resolved. We apologise to our long-standing GenAlEx users on the Macintosh for these issues which are beyond our control.

Notes of December 2016

The Dec 4, 2016 release of *GenAlEx 6.503.xlam* with its new delivery of GenAlEx options via the Ribbon is a critical first step towards towards delivering GenAlEx compatibility for Excel 2016 on the Macintosh.

Please note that although not yet fully compatible with Excel 2016 on the Macintosh, preliminary tests show that this version does run on the Mac, but with some impaired dialog box functions yet to be resolved. We hope to resolve these additional issues, and release a fully compatible version for the Mac as soon as possible.

Notes of December 2015

On Macintosh computers, *GenAlEx 6.502.xla* or early can be run in Excel 2004 and Excel 2011, but not Excel 2008 or Excel 2016.

Issues - Excel 2016 on Mac

Although early releases of Office 2016 are available for the Macintosh, current releases by Microsoft do not yet offer full Visual Basic for Applications (VBA) functionality, which is required to run GenAlEx within Excel. Therefore, for the time being you will need to continue to run GenAlEx in Excel 2011. Please note that this is a general issue for all VBA packages, and beyond our control. We apologise for any inconvenience.

Issues - Excel 2011 on Mac

We are not aware of any major issues with GenAlEx 6.501 or 6.502 running on the latest updates of Excel 2011. However, there are some minor known issues:

- 1. Progress on the number of permutations normally displayed in the bottom bar on a PC is not shown on the Mac. A solution for this Mac specific issue has not been found.
- 2. Some warnings will report values to full decimal places, rather than 3 decimal places. E.g. Warning! Negative Unbiased Nei Genetic Distance of -0.0205902423475011 between pops Pop1 and Pop3 converted to zero!

Warning! Negative Unbiased Nei Genetic Distance of

3. After importing Raw Sequences some manual adjustment of row and column widths may be required.

Previous Issues (no longer apply to the latest updates of Excel 2011)

1. PCA graph would not be plotted.

This issue appeared to be due to a known Excel 2011 VBA bug in the original release. (14.0).

- 2. Installation as an add-in caused Excel to crash.
- 3. In some configurations of Macintosh/Excel users have reported crashes in Excel after installation of GenAlEx as Add-in (via either GenAlEx menu) or via Excel. If you encounter any such crashes we suggest that you immediately uninstall GenAlEx. Instead, always launch GenAlEx from within Excel, on a needs basis. To do this, first launch Excel then open GenAlEx via *Open* in the *File* menu.

Tip: If you are unable to re-launch Excel after installing GenAlEx as an Add-in, simply remove GenAlEx from its present location, then re-launch Excel. It may warn that it cannot find the Add-in, if so click Ok, then proceed to run Excel without GenAlEx installed.

Note that in general, GenAlEx calculations take longer on the Mac than on a PC. This is particularly true for Excel 2004 compared with Excel 2003 on PC. This is a general feature of Visual Basic for Applications (VBA-the language GenAlEx is written in) and is beyond our control. If you need to do some serious analysis (e.g. large spatial autocorrelation studies) you might consider running on a PC or upgrading to Excel 2011 on an Intel Macintosh.

While Excel 2011 speeds on Intel Macs are a big improvement over Excel 2004, for serious data sets a good solution for Mac users is to run Windows on your Mac (as a cold boot on a separate hard drive partition). Indeed, GenAlEx 6.5 on has been programmed in Windows running on an Intel Mac!