# Fixes to NPTransect-KIMU based on 2011 field work.

## Priority A

1. Fixed. There was a small code change, as well as a change to the database schema (the domain/lookup value for the species code was also incorrect).
2. Not really fixed. I have poured over the code, and I have corrected a few minor threading issues, and am pretty confident that is no longer the problem.
   1. Random errors on startup. This error occurs before any of my code is on the stack. However it is called after my code has been loaded. I suspect that it is a bug in ESRI’s code, although it may be that my code does not meet the expectation of the platform. I cannot find any documentation or similar issues on the forums to provide help. I upgraded to the latest build of ArcGIS Mobile (2550), but that did not solve the problem. Since the problem is very sporadic, harmless (although annoying), and not specifically on your list. I am going to give up.
   2. The second and fourth events listed in your report are due to a known bug in the data grid “deferRefresh”. The problem occurs in the following situation. If there are two bird groups in the data grid, with no blank row at the bottom of the grid, and then you save the bird group, and then from the map view click to edit the bird group, you will crash. I believe I have fixed the problem, at least I cannot reproduce it any longer.
   3. The other stack traces were all the same. I found the code that was failing, and have added the necessary checks to keep from crashing. The problem is that somehow, some ‘phantom’ features are remaining in the stack when they have no geometry. I am no looking out for them and ignoring them. They are not in the database, and are essentially harmless. I am frustrated that I cannot determine the cause. A few times I was able to induce the behavior by deleting a feature, and then quickly trying to delete another feature, or add another feature, but never with an consistency.
3. Not fixed. This is Microsoft’s designed behavior. When you tab out of the last cell in the last row it goes to the next control, it does not tab into the first cell of a new row. I struggled with this, and could not find a simple way to change this behavior. The complicated attempts introduced other more undesirable side effects. There are two mitigating factors in leaving it like it is: 1) There are only 5 (out of 2019) observations that had three bird groups, so this problem does not occur very often. 2) If you hit enter instead of tab when you are finished with the second bird group and you will jump down into a new third bird group (unfortunately in the same column, not the first column).
4. Not fixed. I spent hours pouring over my code looking for why it isn’t working. I can find no problems in my code, and it works as expected most of the time, and when it doesn’t, there is nothing different from when it does. When I hook up the debugger, it works every time (there is a context switch that triggers the interface to do an update and select all in the text box). I’m deeply frustrated, and feel like I’ve failed you, but I can’t justify much more time on this silly issue.

## Priority B

1. Done. Increased font size.
2. I can’t replicate this problem, nor can I find anything wrong in my code. It always saves quickly for me. My only suspicion is that the track log may start getting really long, and when that gets written to disk it is probably not incremental, but wholesale. If you have been track logging for an hour (without any parameter changes), there will be about 1800 vertices (not really a large save, but bigger than anything else being done). This would be much easier to debug if I could replicate it. I have tried track logging for over an hour, without any perceptible slow down. Nevertheless, I have implemented an auto stop/start to close, open a new trackl og about every 30minutes (1000 vertices).
3. Once again, I cannot replicate this problem, not find anything in my code that could be causing the problem. Furthermore, all the UI work involved in updating the controls is being done by Microsoft’s code not mine. I be happy to investigate this further if I can get more specifics.
4. Done. There is a new switch box on the map view when track logging. If you want to turn off auto pan when you are not track logging, you must turn off the GPS (top right button).
5. Done. I have not provided a “tooltip” like box when you hover over the observation, but when you click on an observation or bird group, you will be presented with the requested information (except angle and distance).
6. This is possible with the default capabilities in the application. When you are not recording, you can select the Identify task instead of the Collect Observations task. From that task, you can select items on the map and edit their attributes. WARNING: you can also delete features from this interface, however the deleting from here does not correctly maintain the referential integrity of the database (i.e. deleting an observation does not delete the related bird groups).
7. Done. Additional customizing code had to be added to initiate row editing with a keystroke in the first combo box (this is default behavior for a text box like the group size, but not for a combo box).
8. Done.

## Priority C

1. I can see no problems with your proposal
2. This is fixed in the database (from which the application gets the default). I have fixed an empty version I am providing to you, as well as a copy of last years database with the same changes.

## Other Issues

1. I fixed the editing of existing observations and bird groups, so that the cancel button actually reverts to the state at the beginning of the edit. Previously, changes to the angle, distance, and the bird groups were being applied as the changes were made, and the cancel button had no effect. In addition, if you deleted a bird group from the data grid, it was not getting deleted from the database. These problems have been fixed.