FEAST software: Release history

Date	Version	Details
18/09/2025	Beta 1.0.2.3	New functions: The "Indicator Explorer" has been renamed the "Indicator and biodiversity monitoring methods explorer" and now
		includes the outputs of Framework Deliverable 5.4 on biodiversity monitoring methods.
		Indicators added: Meadow pipits; Common starlings; Great crested newts.
		Indicators amended: Eurasian stone-curlews; Grey partridge; Yellowhammers; Common linnets; and Northern lapwings.
		Bug fixes: Fixes to bugs in the map editor (issue 21: optimal zone display and saving it as a map layer), plus general bug fixes and
		improvements.
14/07/2025	Beta 1.0.2.2	New functions: Improvements made to the prototype field record. Option to enter an API key for Bing Maps (Note: from 1 July 2025,
		Bing Maps are no longer freely available to be integrated in apps and can only be used a base map in FEAST by entering a valid API
1		key).
		Indicators: Improvements made to the pesticide load indicators: (1) UK Pesticide Load Indicator (PLI); and (2) Total Applied Toxicity.
		Bug fixes: Fixes bugs in prototype field record, plus general bug fixes and improvements.
09/06/2025	Beta 1.0.2.1	Indicators: Minor amendments to scoring for grey partridges.
		Bug fixes: Fixes to map editor when deleting a layer from the map and prototype field record (issue 20), plus general bug fixes and
		improvements.
08/05/2025	Beta 1.0.2.0	New functions: Prototype field record tool added to facilitate the addition of the indicators below. Access to Sentinel 2 base maps
		added.
		Indicators: Amendments to scoring for grey partridges. New pesticide load indicators added: (1) UK Pesticide Load Indicator (PLI); and
		(2) Total Applied Toxicity.
		Bug fixes: General bug fixes and improvements.
13/03/2025	Beta 1.0.1.9	New functions: Map editor: new button to halt/pause spatial calculations. Calculations involving large numbers of polygons can take
		a while to process. Previously, when a user started a calculation they would have to wait for it to finish (or end task the application
		within Windows). Now users can click on a stop button mid-calculation to stop it.
		Bug fixes: General bug fixes and improvements.
10/03/2025	Beta 1.0.1.8	First public release of the Beta version.
		New functions: Map editor: function to aggregate polygons (and associated data) into a single polygon. Likewise a function to
		disaggregate multipart polygons into single polygons. Data import and synchronisation tool: functions to import an existing shapefile
		(containing landscape features) into FEAST.
		Bug fixes: General bug fixes and improvements; including improvements to the processing speed for spatial calculations.

Date	Version	Details
16/12/2024	Beta 1.0.1.7	New functions: Map editor. New item on the Maps menu to open the current location in Google maps (within a browser). Indicators: Amendments made to indicators for European turtle doves. New indicators added for Parasitic wasps (long mouthpart) and Parasitic wasps (short mouthpart). Bug fixes: General bug fixes and improvements.
18/11/2024	Beta 1.0.1.6	New functions: Map calculator: Once different metrics have been added to the map and/or spatial habitat suitability indices (HSIs) have been calculated, these can now be combined these into a new field on the map using a new map calculator function. For example, summing up the HSIs for several species to identify features that perform well (or not) for multiple species. Indicators: Amendments made to indicators for Corn buntings and Eurasian stone curlews. Bug fixes: (1) In map editor, non-numeric data could be added in the categorisation table (i.e. for number of categories or max and min values for colour coding map outputs) resulting in a crash, now fixed (Issue 17); (2) In map editor, when opening a project, map layers were not getting cleared, thus the map layers from the previous project/map were getting added to the one that is being opened, now fixed (issue 16); (3) In map editor and map viewer, when displaying the map key, the chart showing the area distribution was using incorrect data, now fixed (Issue 15); and (4) General minor fixes and improvements.
29/10/2024	Beta 1.0.1.5	Indicators added: Barrier coefficients added for butterfly species groups (see indicator implementation status in the "03 Software indicator status" on Teams). Bug fixes: (1) FEAST project file: if user moves a project (unzipped), when it is opened the files are not found. There is an option to find the missing files but this crashes sometimes and was also not updating links to map layers for maps (Issue 14) - this has now been fixed; (2) General minor fixes and improvements.
17/10/2024	Beta 1.0.1.4	New functions: (1) Key software settings are now stored within the user's data file. This makes the process more streamlined with respect to managing how calculations have been made in different FEAST projects; (2) changing the assumption protocol for missing data (in settings) will now warn that all indicators need to be recalculated. Bug fixes: (1) Spatial habitat suitability index (sHSI) method clash (Issue 13) was resulting in distorted data when switching between different settings in the users file and the core software; (2) Project explorer: opening project explorer crashes with unexpected error (Issue 12) due to missing image files; (3) Map key / map properties. The area distribution chart data is often incorrect (Issue 11) due to incorrect area data being collated; (4) General minor fixes and improvements.

Date	Version	Details
15/10/2024	Beta 1.0.1.3	New functions: (1) Estimation of time for recalculating indicators now provided. This has been trickly to implement - the times are
		only an estimate based on the 10 previous calculations. If the previous calculations were very different, the time may not be correct, so should only be considered ball park (key difference is whether it is minutes rather than seconds); (2) A new option that allows
		users to set whether group icons are only used to display the impacts (e.g. only show the results of spatial habitat suitability assessments), which can result in fewer impact icons (less cluttered) being displayed for a feature, but with less detail of the strengths and weaknesses of the feature; (3) Improved functionality on optimal zone reports (icons to remove or save the optimal zone map layer); (4) The report on Suggested features and attributes in the spatial metrics tab in the Map editor, is now also available within the Report builder when you select a report for a spatial habitat suitability indicator.
		Indicators added: Barrier coefficients added for the majority of the remaining species (see indicator implementation status in the "03 Software indicator status" on Teams).
		Bug fixes: (1) indicator recalculation speed increased. When selecting new indicators for an existing file, the software flags up which features need to be recalculated. Previously, this would then recalculate the impacts for all the indicators for each flagged feature. Now, the software only recalculates the indicators that are new, thus speeding up the process; (2) Map editor: Click on open FEAST project, click on Cancel, results in crash (Issue 9) fixed; (3) Missing habitat suitability scores for Daubenton's bats maternity roosts in woodland (Issue 10) added; (4) General minor fixes and improvements.
03/10/2024	Beta 1.0.1.2	New functions: (1) In the map editor, on the spatial metrics tab, there is now a settings tab that allows you to switch on/off some of the functions in the spatial habitat suitability calculation, which can decrease the processing time (albeit with a decrease in the usefulness and reliability of the outputs); (2) report on the current project now lists the indicators that are currently selected. Indicators added: Barrier coefficients added for 30 species (see indicator implementation status in the "03 Software indicator status" on Teams). Thus includes the addition of a new feature (Urban areas) as a barrier for some species. More barrier coefficients will be added in the next version. Bug fixes: Fix for the issue when selecting long-tongued bumblebees causing a crash (Issue 8); Processing time for spatial habitat suitability calculation decreased by ~50% (Issue 7); General minor fixes and improvements.
19/09/2024	Beta 1.0.1.1	New functions: In the map editor, on the spatial metrics tab, when you select an indicator if there are observations for the selected species (or species group) within the monitoring data (that the user has entered or imported), then there is now an option to display those observations on the current map (click on the add to map icon). Indicators added: Solitary (cavity nesting) bees; and Solitary (ground nesting) bees. Bug fixes: Fixes to bugs on settings screen (Issue 6); Fix for copy and paste in land and feature manager (Issue 5); Fix for adding multiple features at one in map editor (Issue 4); General minor fixes and improvements.

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10/09/2024	Beta 1.0.1.0	Revised functions: (1) Optimal zone identification: now accounts for barriers for some species (currently only operational for 3 bat species: Barbastelle, Brandt's; and Whiskered); (2) Setting and options screen has been partly rationalised/tidied up. Indicators added: Bank voles; Common pipistrelle bats; Field voles; Leisler's bats; Lesser horseshoe bats; Narthusius pipistrelle bats; Natterer's bats; Noctule bats; Soprano pipistrelle bats; Springtails (collembola); Stoats; Water voles; Whiskered bats. Bug fixes: General minor fixes and improvements.
20/08/2024	Beta 1.0.0.9	Revised functions: (1) Spatial habitat suitability index calculation: different options are now available in the settings, including an option to normalise the index and thus determine landscape performance in relation to a potential maximum; (2) Optimal zone identification: revisions to the calculation routine and a new option in the settings for what distance to use when there are different distances for different habitats for a species. Indicators added: Alcathoe's bats; Bechstein's bats; Brandt's bats; Butterflies (Group 05: browns); Butterflies (Group 06: fritillaries); Butterflies (Group 07: skippers); Butterflies (Group 08: hairstreaks); Butterflies (Group 09: coppers); Butterflies (Group 10: other / large wingspan spp); Common shrews; European turtle doves; Harvest mice; Hazel dormice; Honey bees; Otters; Pygmy shrews; Rove (staphylinid) beetles; Serotine bats; Water shrews; Weasels; Western yellow wagtails; Yellow-necked mice. Landscape features added/amended: Fallow land as a separate feature has been removed and is now part of 'Land blocks, strips and margins' (previously named 'Land strips'). 'Water: Other wetlands' has been added as a new feature. Bug fixes: General minor fixes and improvements.
24/07/2024	Beta 1.0.0.8	New functions: Prototype function in map editor released: Optimal zone identification; Ability to switch autosave on/off in map editor; Links to further guidance embedded in spatial metric report in the map editor. Indicators added: Butterflies (Group 03: Nymphalids); Butterflies (Group 04: blues); Common linnets; Corn buntings; Eurasian stone-curlews; Eurasian tree sparrows; Hedgehogs; Northern lapwings; Sheetweb weaver spiders (Linyphiidae); Yellowhammers; Wood mice. Indicators updated: Cirl buntings; Eurasian skylarks; Grey partridges. Bug fixes: Save Project As error (1); recalculation flag issue in indicator selection (2).
03/07/2024	Beta 1.0.0.7	First version for wider testing