TAXON - FIGURE PREPARATION

The following **applies to ALL figures** (figures in print and online versions of an article as well as supplementary figures).

1) For review process, do not supply figures in other format than jpg or pdf and keep size of a single file below 2 MB. Please ensure that their quality is sufficient for the review process.

2) After acceptance of your article, you will be asked by the production editor to submit final figures. Do not send those figures in advance.

3) Basics

Rasterized images (also called bitmaps) consist of pixels (dots); e.g., photos made with a digital camera and all scanned materials.

Vector images consist of points connected by lines; e.g., diagrams, charts, phylogenetic trees and the like, generated by computer software (e.g., Adobe Illustrator, CorelDraw, software used to generate phylogenetic trees, Excel, etc.).

Phylogenetic trees: The software used to generate the trees should offer the possibility to save the tree in a format such as eps, svg or pdf that allows for further editing in a vector graphics program.

Each figure must be saved in its own file. If a figure has been split into parts (because of its size) each part must be saved in a single file.

4) File formats

Bitmaps: tiff and psd (Photoshop); avoid jpg (see below).

Vector graphics: ai (Adobe Illustrator, up to CS6), cdr (CorelDraw, up to version X5), svg (scalable vector graphics), pdf.

Contact the production editor **before** sending other formats.

jpg: If the original version of an image is in jpg, the very first action should be to save it as tiff (and not as jpg again; each time a jpg is saved in the same format, quality decreases).

Not accepted: figures embedded in Word files, Powerpoint, etc. Diagrams or charts generated in Word or Excel should be printed or exported to pdf.

Note: Saving a bitmap (pixel graphics) in a vector graphics file type does not change the bitmap to a vector graphic.

5) Dimensions

If possible, the Figures should be prepared with a width of 85, 130 or 176 mm and a maximum height of 235 mm. Deviations from these dimensions are allowed, e.g., in the case of large phylogenetic trees that are split up and spread over a number of pages. In such cases, the separate parts *should* be scaled consistently whilst keeping within the maximum dimensions, otherwise scales must be indicated. Trim figures to the utmost minimum, leaving no margin around the image. Figures should be prepared and supplied in the final size with minimum stroke of 0.3 pt and minimum letter size of 7 pt.

6) Colour

Bitmaps: Leave in RGB colour mode (except if the original version is already in CMYK); do not remove a colour profile. Spot colours (e.g., Pantone, HKS, etc.) will be converted into CMYK.
Vector graphics: Optimize colors in CMYK mode.
Greyscale: To achieve best possible differentiation between shades of grey in diagrams or charts, use 20% steps; avoid patterns and textures.
If figures should appear in colour online only and b&w in print you must submit both versions. Bear in mind that – to achieve optimal results – simply changing the colour mode from RGB (or CMYK) to Greyscale in an image editing application is not the method of choice. All characters referred to in figure captions or text must be visible in both colour and b&w versions. We do not accept different captions for colour and b&w versions of a figure.

Note that printed colours may slightly differ from the colours of the original.

7) Resolution

7a) Vector graphics

The advantage of vector graphics is that it is freely scalable and resolution does not play a role except if a bitmap is integrated. For such bitmaps, the same rules as below apply. It is important to note that if oversized vector graphics have to be scaled down stroke and font sizes may fall under the required thresholds.

7b) Bitmaps

Scanned materials
Photos, colour: scan in RGB colour mode, minimum resolution 300 ppi
Photos, monochrome: scan in greyscale mode, minimum resolution 300 ppi
Line art, black & white (no grey): scan in bitmap mode, minimum resolution 1200 ppi
Line art, black, gray & white: scan in greyscale mode, minimum resolution 600 ppi
Line art, colour: scan in RGB mode, minimum resolution 600 ppi
To be on the safe side, you may scan with higher resolutions. Make sure that you not only scan with sufficient resolution but also with the desired final dimensions.

If you edit scanned images in an image editing software, take care to not to change resolution except if you downsize. In case of downsizing, do not resample the image (Photoshop: Image – Image size – do not check the box „Resample Image").

Photos by digital camera

Always take photos with the highest available resolution to be on the safe side. The utmost minimum is 300 ppi.

A major mistake is to take photos at a resolution of 72 or 96 ppi or use images from the web, which rarely have better quality. Such low resolution is fine for screen display but much too low for print. If you edit photos, take care to not to change resolution except if you change size. In case of downsizing, do not resample the image (Photoshop: Image – Image size – un-check box "Resample Image"; in case of scaling up, do resample (i.e., check the box "Resample Image"), but do not allow resolution to fall below 300 ppi. If the image is already at the minimum of 300 dpi, you may not increase size.

8) Fonts: Use only sans serif fonts (preferred: Arial) in figures. Do not use serif fonts (e.g., Times New Roman). Use symbol fonts only for characters not available in Arial. Panels or subfigures are labelled with capital letters (preferred position: upper-left).
Scientific names of genus level and below must be in italics, but do not italicize ranks (e.g., subsp., etc.) and identifiers of specimens (e.g., numbers following a species name).
Never convert fonts into paths or outlines. Do not flatten bitmap files with text layers. Calculate letter size in consideration of the final figure size. Actual letter size must not be less than 7 pt.

STILL QUESTIONS? – Contact the Production Editor (production@iapt-taxon.org)