

# Template for preparing your research report submission to PNAS using RMarkdown

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**Please provide an abstract of no more than 250 words in a single paragraph. Abstracts should explain to the general reader the major contributions of the article. References in the abstract must be cited in full within the abstract itself and cited in the text.**

one | two | optional | optional | optional

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## Submitting Manuscripts.

```
{r,rproj}
creation_Fig4 = function(bd){
  nlat2 <- as.data.frame(tapply(bd$species, bd$lat, function(x) length(unique(x))))
  colnames(nlat2) <- "Nombre_especies"
  nlat2$Latitude <- rownames(nlat2)
  nlat2 <- nlat2[, c("Latitude", "Nombre_especies")]

  ###EN NUMERIC
  nlat2$Latitude <- as.numeric(nlat2$Latitude)
  nlat2$Nombre_especies <- as.numeric(nlat2$Nombre_especies)

  ###MODELE LINEAIRE
  model <- lm(Nombre_especies ~ Latitude, data = nlat2)
  summary(model)
  visreg::visreg(model)
}
creation_Fig4(bd_tsn)
```

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**Fig. 1.** Placeholder image of a frog with a long example caption to show justification setting.

their use has no bearing on acceptance of a manuscript for publication.

**Digital Figures.** Only TIFF, EPS, and high-resolution PDF for Mac or PC are allowed for figures that will appear in the main text, and images must be final size. Authors may submit U3D or PRC files for 3D images; these must be accompanied by 2D representations in TIFF, EPS, or high-resolution PDF format. Color images must be in RGB (red, green, blue) mode. Include the font files for any text.

Figures and Tables should be labelled and referenced in the standard way using the `\label{}` and `\ref{}` commands.

Figure

*fig : frog*

shows an example of how to insert a column-wide figure. To insert a figure wider than one column, please use the `\begin{figure*}...\end{figure*}` environment. Figures wider than one column should be sized to 11.4 cm or 17.8 cm wide.

**Single column equations.** Authors may use 1- or 2-column equations in their article, according to their preference.

To allow an equation to span both columns, options are to use the `\begin{figure*}...\end{figure*}` environment mentioned above for figures, or to use the `\begin{widetext}...\end{widetext}` environment as shown in equation

*eqn : example*

below.

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$$\begin{aligned}(x + y)^3 &= (x + y)(x + y)^2 \\ &= (x + y)(x^2 + 2xy + y^2) \\ &= x^3 + 3x^2y + 3xy^2 + y^3.\end{aligned}$$

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**ACKNOWLEDGMENTS.** Please include your acknowledgments here, set in a single paragraph. Please do not include any acknowledgments in the Supporting Information, or anywhere else in the manuscript.

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