

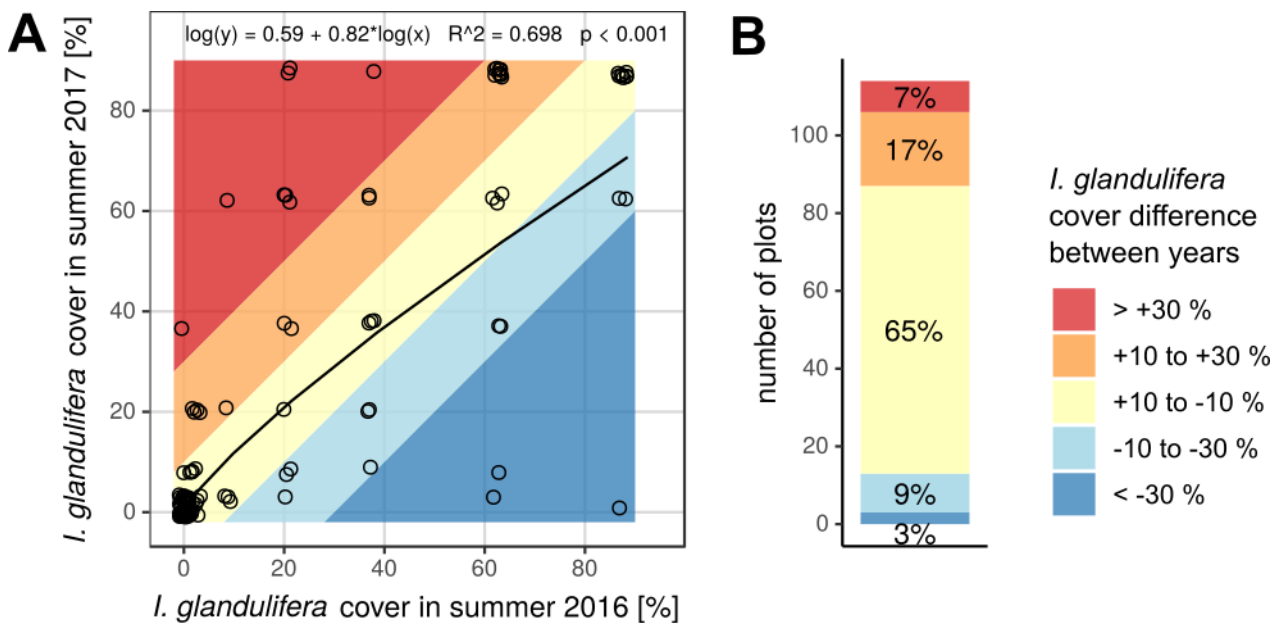
**Supplementary file 1, additional information:**  
**Year-to-year changes in cover of *Impatiens glandulifera***

Methods

In summer 2017 (2017-08-17/09-07) the cover of *I. glandulifera* was estimated in all plots according to extended Braun-Blanquet scale. With a linear model it was tested whether the cover of *I. glandulifera* in summer 2017 depended on the cover in summer 2016 (see Materials and Methods section of the manuscript) and between-year changes in cover of *I. glandulifera* were visualized.

Results

Cover of *I. glandulifera* in summer 2017 highly depended on its cover in summer 2016 ( $R^2 = 0.698$ ,  $F_{(1,112)} = 262.6$ ,  $p < 0.001$ , see figure). In 65 % of the plots cover of *I. glandulifera* changed less than  $\pm 10$  % from year to year but in 10 % of the plots there was a change larger than 30 %. For example, in one plot cover of *I. glandulifera* declined from 87 % in summer 2016 to 0 % in summer 2017. Overall increase in cover  $>10$  % of *I. glandulifera* occurred more often (24% plots) than decrease  $< -10$  % (12% plots).



**Figure legend.** Year-to-year change in cover of *I. glandulifera*. **A** Cover of *I. glandulifera* in summer 2017 versus its cover in summer 2016. Regression was tested with a linear model log-transforming both, predictor and response variable ( $n = 114$ ). Resulting regression equation, p-value and  $R^2$  are given. To avoid overplotting of points 1 % random noise was added to the data. Color shading indicates difference in the cover of *I. glandulifera* between the two years as given in the legend. The colored areas in the plot are bound by straight lines with slope 1 and y-intercepts 30, 10, -10 and -30 respectively. **B** Number of plots depending on the difference in *I. glandulifera* cover between summer 2017 and summer 2016.