

情報リテラシ第二 (1b)

第6週

プレゼンテーション (改訂)

文書作成 (図・表・参照)

課題: (1)グラフ作成(2)改訂スライド
(3)スライド批評の逆評価

- 3つの提出物がある
- (1)と(2)はOCW-iの1つの課題に2つ提出物を登録する
- (3)はwebページに入力をする
- 期限 7月27日(金)

課題(1): グラフ作成

- 手順

1. グラフ作成スクリプトのアーカイブ(.zip)ファイルを作る
Finderでグラフ作成を行ったtheme1-dataフォルダを右クリックし「theme1-dataを圧縮」を選ぶ
2. theme1-data.zipという名前のアーカイブができるので、OCW-iの課題画面から提出する。提出ファイルタイトルは「graph」とせよ。

- グラフ作成はこれが最終提出物 → 成績評価に反映

課題(2): 改訂スライド

手順

1. [改善意見](#)を参考にしてスライドを改訂し、
OCW-iで提出せよ
提出ファイルタイトルは「presentation」とせよ
- 提出されたスライドを次回授業での発表に使用する
 - 期限内に提出する → 成績評価に反映 & 次回授業で発表できる
 - 次回授業は座席指定

課題(3): スライド批評の逆評価

- 自分のスライドに付けられた批評に対して、役に立ったかどうかを評価せよ
- 入力ページ

LaTeXによる文書作成

解説予定

- 段落
 - 数式
 - 図、表、参照
 - 文献と引用
- 先週
 - 今週
 - 次週

科学技術文書における図表の扱い

- 図表 ≠ 挿絵：図表は仕組みやデータのように文章で表わせない内容
 - 図表の配置には流儀がいくつかある
 - 説明している文章の直前、直後に置く
 - 説明している文章と同じページの上下端
(注意しないと同じページにならない)
 - 図表だけまとめて文章とは別のページに
- ※ 最近は図表の配置も著者が行うことが多い

科学技術論文における 図表の例

- ALFRED W. BENNETT, On the Fertilisation of Winter-Flowering Plants, *Nature* Vol.1, No.1, p11-13, 1869

followed, until the notions which represented Goethe's superlative are now the commonplaces of science—and we have a super-superlative of our own.

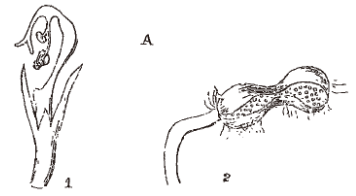
When another half-century has passed, curious readers of the back numbers of NATURE will probably look on *our* best, “not without a smile;” and, it may be, that long after the theories of the philosophers whose achievements are recorded in these pages, are obsolete, the vision of the poet will remain as a truthful and efficient symbol of the wonder and the mystery of Nature. T. H. HUXLEY

ON THE FERTILISATION OF WINTER-FLOWERING PLANTS

THAT the stamens are the male organ of the flower, forming unitedly what the older writers called the “androcœcium,” is a fact familiar not only to the scientific man, but to the ordinary observer. The earlier botanists formed the natural conclusion that the stamens and pistil in a flower are intended mutually to play the part of male and female organs to one another. Sprengel was the first to point out, about the year 1790, that in many plants the arrangement of the organs is such, that this mutual interchange of offices in the same flower is impossible; and more recently, Hildebrand in Germany, and Darwin in England, have investigated the very important part played by insects in the fertilisation of the pistil of one individual by the stamens of another individual of the same species.

It is now generally admitted by botanists that cross-fertilisation is the rule rather than the exception. The various contrivances for ensuring it, to which Mr. Darwin has especially called the attention of botanists, are most beautiful and interesting; and the field thus opened out is one which, from its extent, importance, and interest, will amply repay the investigation of future observers. For this cross-fertilisation to take place, however, some foreign agency like that of insects is evidently necessary, for conveying the pollen from one flower to another. The question naturally occurs, How then is fertilisation accomplished in those plants which flower habitually in the winter, when the number of insects that can assist in it is at all events very small? I venture to offer the following notes as a sequel to Mr. Darwin's observations, and as illustrating a point which has not been elucidated by any investigations that have yet been recorded. I do not here refer to those flowers of which, in mild seasons, stray half-starved specimens may be found in December or January, and of which we are favoured with lists every year in the corners of newspapers, as evidence of “the extraordinary mildness of the season.” I wish to call attention exclusively to those plants, of which we have a few in this country, whose normal time of flowering is almost the depth of winter, like the hazel-nut *Corylus avellana*, the butcher's broom *Ruscus aculeatus*, and the gorse *Ulex europæus*; and to that more numerous class which flower and fructify all through the year, almost regardless of season or temperature; among which may be mentioned the white and red dead-nettles *Lamium album* and *purpureum*, the *Veronica Buxbaumii*, the daisy, dandelion, and groundsel, the common spurge *Euphorbia peplus*, the shepherd's purse, and some others.

During the winter of 1868-69, I had the opportunity of making some observations on this class of plants; the result being that I found that, as a general rule, fertilisation, or at all events the discharge of the pollen by the anthers, takes place in the bud before the flower is opened, thus ensuring *self-fertilisation* under the most favourable circumstances, with complete protection from the weather, assisted, no doubt, by that rise of temperature which is known to take place in certain plants at the time of flowering. The dissection of a flower of *Lamium album* (Fig. A) gathered the last week in December, showed the stamens completely curved down and brought almost into contact with the bifid stigma, the pollen being at that time freely discharged from the anthers. A more complete contrivance for self-fertilisation than is here presented would be impossible. The same phenomena were observed in *Veronica Buxbaumii*, where the anthers are



A. LAMIUM ALBUM.
1. Section of bud, calyx and corolla removed.
2. Stamen from bud, enlarged, discharging pollen.

most in contact with the stigma before the opening of the flower, which occurs but seldom, *V. agrestis* and *polita*, the larger periwinkle *Vinca major*, the gorse, dandelion, groundsel, daisy, shepherd's purse, in which the four longer stamens appear to discharge their pollen in the bud, the two shorter ones not till a later period, *Lamium purpureum*, *Cardamine hirsuta*, and the chickweed *Stellaria media*, in which the flowers open only under the influence of bright sunshine. In nearly all these cases, abundance of fully-formed, seed-bearing capsules were observed in the specimens examined, all the observations being made between the 28th of December and the 20th of January.

In contrast with these was also examined a number of wild plants which had been tempted by the mild January to put forth a few wretched flowers at a very abnormal season, including the charlock *Sinapis arvensis*, wild thyme *Thymus serpyllum*, and fumitory *Fumaria officinalis*; in all of which instances was there not only no pollen discharged before the opening of the flower, but no seed was observed to be formed. An untimely specimen of the common garden bean *Faba vulgaris*, presented altogether different phenomena from its relative the gorse, the anthers not discharging their pollen till after the opening of the flower; and the same was observed in the case of the *Lamium Galeobdolon* or yellow archangel (Fig. B) gathered in April, notwithstanding its consanguinity to the dead-nettle.

Another beautiful contrast to this arrangement is afforded by those plants which, though natives of warmer climates, continue to flower in our gardens in the depth of winter. An example of this class is furnished by the common yellow jasmine, *Jasminum nudiflorum*, from

LaTeXにおける図表の扱い

```
...  
\begin {figure}[htbp]  
  \centerline {\includegraphics  
[width=0.80\linewidth]{fig2-cnm-  
joins-time-series.pdf}}  
  \caption {ネットワークの解析に  
要した時間の時系列遷移}  
  \label {fig: newman time diff}  
\end{figure}  
...
```

- 「このへんに図表を入れます」
- 入れる場所: 本文中、ページ上部、下部、独立ページの順に試す
- 図の中身
- 図見出し
- 「ラベル」(後で説明)

図表の番号と参照

番号を付ける

```
...  
\begin{figure}  
  \centerline{\includegraphics[width=0.80\linewidth]{fig2-cnm-joins-time-series.pdf}}  
  \caption{ネットワークの解析に要した時間の時系列遷移}  
  \label{fig: newman time diff}  
\end{figure}
```

覚えた番号を使う

```
...  
図\ref{fig: newman time diff}はmixi  
ネットワーク
```

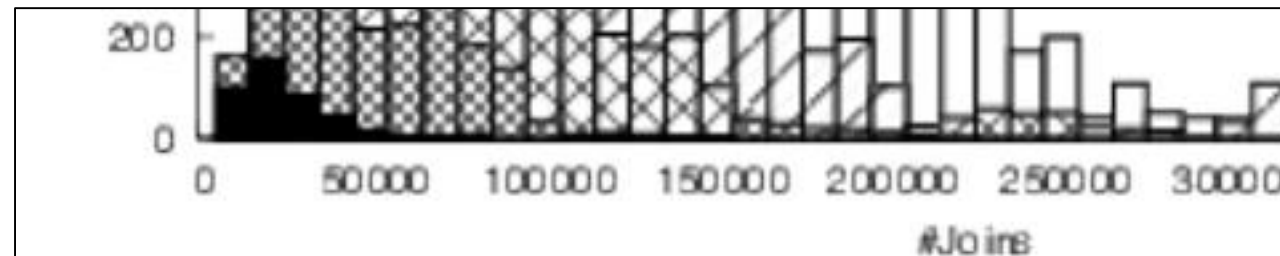


図2 ネットワークの解析に要した時間の時

番号を覚える

図2は mixi ネットワークの様々な
クラスタ抽出が完了するまでの