

RBGE's phenological legacy: a decade of pseudo-phenology, untruths, and fake science

The attempt to reinvigorate phenological work a decade ago began with great promise. Sadly it has deteriorated into a dreadful mess. In particular the data analysis has been carried out in a truly terrible way.

First, the Garden uses volunteers to endlessly trawl through large compilations of plant-weather relationships until they happen to come across an association. Vast numbers of spurious (fake-science) results inevitably arise. By refusing to carry out proper scientific validation before accepting the associations the Garden has fallen headlong into the well-known statistical trap of “*arbitrary comparisons and excessive data-dredging*”.

Secondly, a total lack of enlightened management, and recognition of the need for constant policing of the volunteer effort, has led to fake scientific nonsense endlessly appearing in the Garden's internal publications, being taught on its MSc courses and promoted at meetings.

RBGE's key managerial shortcoming has been its failure to recognise the scientific misconduct associated with its internal phenological reporting over the previous half-decade.

The crux of the managerial shortcoming being that Sibbaldia had not been using a sensible peer review process. Even when Henning Scholz (Project coordinator - BHL-Europe) tackled the issue, RBGE's management merely adroitly side-stepped the Sibbaldia problem by soliciting material from the phenologists for alternative internal communications (i.e. publications outside Scholz's sphere of influence).

Correspondence with Dr. Scholz emphasised how RBGE's major scientific gaffe has been to fail to recognise that never-ending “cherry picking” leads to results which are neither reproducible nor repeatable, i.e. to fake science.

RBGE's neat evasion of the Sibbaldia embarrassment (i.e. of the pressing need to publish a retraction) of course merely made the scientific malady worse. RBGE's inward looking attitude, and facilitation of the avoidance of the normal scientific process (i.e. submission to outside peer-review), has inevitably engendered ever-worsening phenological work.

To bring the whole matter into focus, I defy anyone at RBGE, or any expert they care to draw upon, to take the raw (i.e. full) datasets of any of the countless vegetation-weather (phenological) relationships broadcast through *Sibbaldia* articles, to re-analyse the data independently, to arrive at the same botanical 'triggers' that control a plant's annual cycle, and hence validate any of RBGE's biological claims.

One cannot help but wonder how this sad state of affairs has come to pass. Who is to blame? Junior management? Top management? Surely not the volunteers (how can they possibly be expected to police themselves)?