

ERICA USERS' GROUP

Newsletter number 1

By Colin French

Welcome to the ERICA Users' Group. This group is intended to keep its members informed of database developments and to act as a forum for everyone to exchange ideas about what improvements they would like to see as well as report bugs (I prefer to call them features) or any problems encountered.

There are just over 50 individual users of ERICA, plus it is used by students and staff at Newquay College, where it is installed on their internal network. In addition, Natural England has two copies of the database and the RSPB has one copy. ERICA is used as the main database in Cornwall by the Botanical Society for Britain and Ireland (BSBI) and Butterfly Conservation, and it is used as a supplemental database for the Moth Group, the Fungi Group and by the Dragonfly Recorder, as well as by numerous individual recorders.

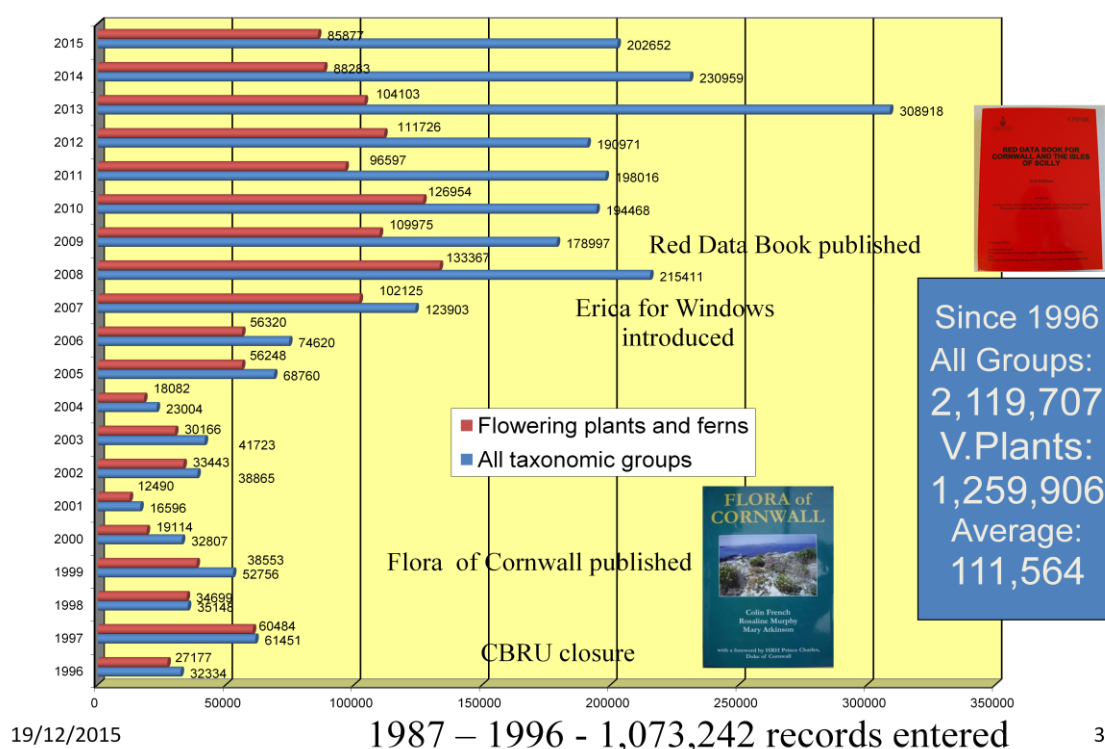
Thanks to an immense collective effort ERICA is growing at a rate of approximately 4000 records a week or just over 200,000 records a year. At the end of 2015 ERICA held the following:

The number of biological records	3,386,224
The number of Flowering Plants and Ferns	1,880,994
The number of edited biological records since 2007	105,055
The number of taxa	26,757
The number of people	20,090
The number of bibliographic sources	14,641
The number of places in gazetteer	15,504
The number of photographs	10,416

Remarkably, 5,142 taxa have been added to the Cornish list in last 8 years and 8,142 people have contributed records in the last five years.

A breakdown of the number of records added to ERICA in 2015, by taxonomic group, can be seen in Appendix 1. I doubt that such a breadth of recording effort can be matched by any other region in Britain.

Number of records entered per year



The table above shows the number of records that have been added to ERICA per year (it should be noted that the total number of records for 2015 is likely to rise by a few thousand more as records entered into ERICA in 2015 continue to trickle in).

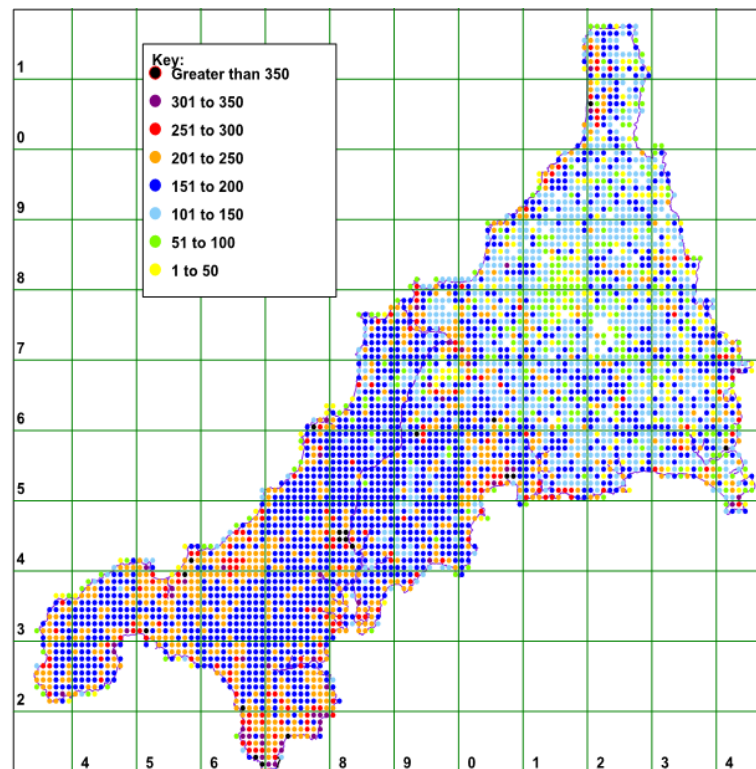
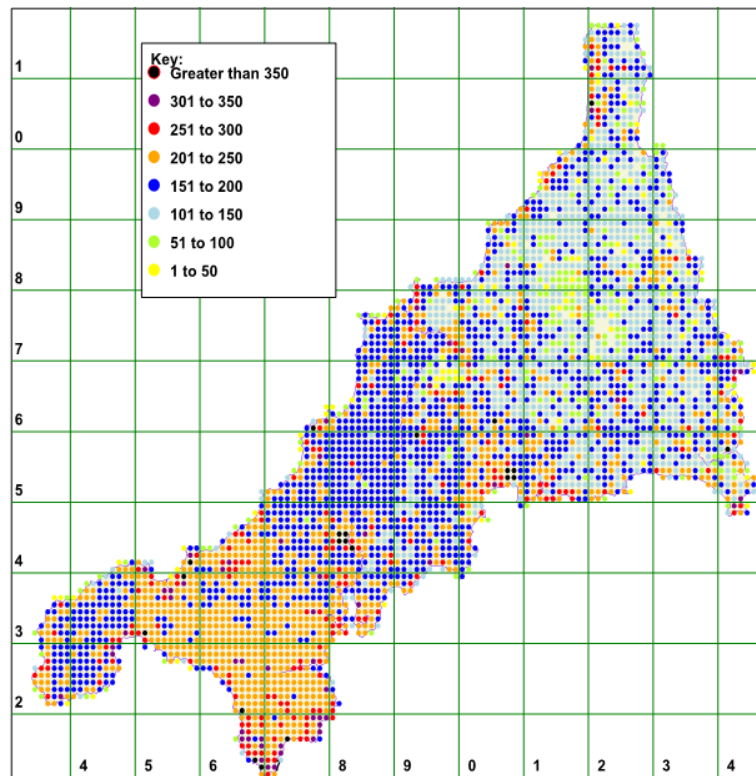
It can be seen that the introduction of the Windows version of the database brought about a dramatic rise in the number of records being computerised. This was partly because it was much more sophisticated and easier to use but also because its introduction coincided with the decision to re-survey Cornwall in order to produce the next *Flora of Cornwall*. It should also be noted that, in the last three years there have been more records input for groups other than the Flowering Plants and Ferns, which is mainly due to records from Butterfly Conservation, the Moth Group, the Fungi Group and the Dragonfly Recorder. The peak in 2013 was made possible thanks to 100,000 moth records that came from Leon Truscott, the Moth Recorder.

It can also be seen that, following a peak in vascular plant records in 2008, there has been a gradual decline in the number of plant records computerised. The reason for this is due to the nature of recording whereby, for any given 1km square, there is a tendency not to record plants that have already been recorded since 1999. So as the number of under-recorded squares diminishes, so does the amount of records generated, despite the fact that the amount of effort that has gone into recording the flora has probably been very similar each year.

For the *Flora of Cornwall* there are 3962 1km squares being surveyed of which 47 1km squares have yet to be visited, 267 have less than 101 species, and 1062 less than 151 (all bar 14 are in East

Cornwall). West Cornwall is in a state worthy of publication with few significantly under-recorded squares left, all of which have considerable access problems such as three at St Mawgan airfield.

The maps below show the number of species of Flowering Plant and Fern that have been recorded per 1km square since 1999. The top map shows the current state of the survey, whilst the bottom one shows the situation at the end of 2014.



It is anticipated that the *Flora of Cornwall* survey should be complete in two more seasons, when the number of vascular plant records will have exceeded 2 million.

RECENT DEVELOPMENTS

In 2015, ERICA has been extensively re-written so that it can run on Microsoft Server and MySQL networks and on the internet. Although the front end has changed relatively little there have been massive changes in the underlying software. At the same time as these changes were underway, the normal processes of keeping individual users up to date with the software took place. With the software in such a state of flux there have been a larger than normal number of bugs, none of which affected data entry. These bugs have now been fixed and the database is in a much more settled and stable state.

The GIS software is the one part that has changed significantly in 2015, especially the 1:10,000 scale which is now much faster to load, uses far less memory, and is easier to use. The old version was prone to crashing on some machines due to the amount of ram it needed.

FUTURE PROJECTS

Future projects include the launching of ERICA on the internet in the form of the Cornish Biodiversity Network. This will enable existing users of ERICA to keep track of the current state of recording as it will be kept up to date. There will be two versions on the Internet.

1. One will need software to be installed on the pc as it will have more functionality than is possible through a web browser such as Internet Explorer. This version has been developed and awaits installation on a suitable server attached to the internet. It will have the full sophistication of ERICA.
2. A web browser based version. This will not require software to be installed on the pc, instead will be available through the internet via a web page. It will be much less sophisticated more limited in scope, but will be available for all internet users to access. This version has not yet been written.

Neither of these internet versions will allow records to be added online. That will be a future development.

THE CURRENT CRISIS IN BIOLOGICAL RECORDING IN CORNWALL

I expect most of you are aware of the current crisis in Biological Recording in Cornwall caused by the decision of Cornwall Wildlife Trust and ERCCIS not to continue using the data provided by ERICA. They have effectively decided to cut off the hand that feeds them and, in so doing, to alienate key parts of the Biological Recording community.

Why they should choose to behave in this way has proven to be incomprehensible, especially as the decision has not been accompanied by credible or rational explanation. Naturally there has been much speculation as to the motivation behind Cornwall Wildlife Trust and ERCCIS. At one extreme is the belief that CWT is trying to rid themselves of ERCCIS (as they nearly did once before) and so have engineered a crisis which will lead to its demise. At the other extreme is the belief that CWT and ERCCIS are attempting to get complete control of Biological Recording in Cornwall by extinguishing ERICA and so creating a monopoly for themselves.

Whatever the motivation, their decision to “phase out ERICA” has failed. Instead, it has ‘opened up a can of worms’ whereby the Recording Community has scrutinised the position of ERCCIS and how well it is performing its role and, in so doing, have come to realise that, to date, ERCCIS has not been treating the Recording Community in a fair or responsible manner. In short, they have been providing negligible support, little collaboration, and wholly inadequate data sharing arrangements. Their position has been one of exploitation, whereas a Records Centre should be there to serve.

After a series of crisis meetings CWT has been effectively presented with an ultimatum. ERCCIS must fundamentally reform or face a very uncertain future without the support of significant parts of the recording community and the vast majority of the data for Cornwall (excluding birds). To become fit for purpose ERCCIS will need to:

- Provide fair and proportionate financial support for the Recording Community.
- Share data properly.
- Reform its governance – the ERCCIS Advisory Board has been weakened and ignored in recent months.
- Collaborate with the Recording Community.

In essence ERCCIS will need to change from being one of the last bastions of feudalism into an organisation that is there to truly serve both the people who feed it with its life blood as well as those that need such data for Conservation, Education, or Planning, etc.

Without such reforms the 3.25 million records that have been lodged with ERCCIS will be removed, alternative arrangements will be made to ensure those data are used for their intended purposes and that the income generated will be used to support the Recording Community.

At the end of the day Cornwall will have an improved system of Biological Recording which meets the needs of the data providers and those wishing to use the data. Whether that future includes ERCCIS has yet to be determined.

Appendix 1

For those of you that like looking at tables of numbers, the table below breaks down the number of records entered into ERICA in 2015 according to taxonomic group. Whilst the majority of the records made are vascular plants and insects, this table demonstrates a remarkable breadth of recording underway in Cornwall, both on land and offshore.

Species name	Number of records
CYANOPHYTA - BLUE GREEN ALGAE	5
RHODOPHYTA - RED ALGAE	183
PHAEOPHYTA - SEAWEEDS	86
CHLOROPHYTA - GREEN ALGAE	43
CHAROPHYTA - STONEWORTS	218
FUNGI - ALL TYPES	7285
MYXOMYCOTA - SLIME MOULDS	11
EUMYCOTA - FUNGI	3
MASTIGOMYCOTINA	2
ASCOMYCOTINA	4043
LICHENS	5193
BASIDIOMYCOTINA	1740
RUSTS & SMUTS	415
MUSHROOMS, TOADSTOOLS & PUFFBALLS	1164
DEUTEROMYCOTINA	943
BRYOPHYTA - MOSSES & LIVERWORTS	1065
BRYOPSIDA (MUSCI) - MOSSES	897
SPHAGNA	550
HEPATICEAE - LIVERWORTS	168
FERNS AND ALLIES	4144
FLOWERING PLANTS AND FERNS	85877
LYCOPSIDA - CLUB MOSSES	98
SPHENOPSIDA - HORSETAILS	169
FILICOPSIDA - FERNS	3877
CONIFERS & ANGIOSPERMS	81733
GYMNOSPERMS	205
FLOWERING PLANTS	78936
ORCHIDS	204
THE PROTOZOA	27
PROTOZOA - CILIOPHORA	2
PORIFERA - SPONGES	22
CNIDARIA - COELENTERATA	192
HYDROIDS	26
JELLYFISH	130
SEA ANEMONES AND CORALS	36
CTENOPHORA - COMB JELLIES	1
PLATYHELMINTHES - FLATWORMS	40
ASCHELMINTHES - ROUND WORMS ETC.	34
NEMERTEA	32
ROTIFERA - ROTIFERS	1
GASTROTRICHS	1
ENTOPROCTA	4

Species name	Number of records
GASTROPODA - GASTROPODS	548
GASTROPODA - PROSOBRANCHIA	99
GASTROPODA - OPISTHOBRANCHIA	177
GASTROPODA - PULMONATA	272
LAMELLIBRANCHS - BIVALVIA	39
CEPHALOPODA - SQUIDS - CUTTLEFISH - OCTOPUSES	7
ANNELIDA - SEGMENTED WORMS	153
POLYCHAETA - BRISTLE WORMS, MARINE WORMS	145
OLIGOCHAETA - EARTHWORMS ETC.	5
HIRUDINEA - LEECHES	3
POLYZOA - BRYOZOANS, MOSS ANIMALS	38
ARTHROPODA - ARTHROPODS	92632
CRUSTACEA - CRUSTACEANS	2
OSTRACODA - OSTRACODS	1
CLADOCERA - WATER FLEAS	1
CIRRIPEDA - BARNACLES	23
DECAPODA - SHRIMPS, CRABS ETC.	68
AMPHIPODA - SANDHOPPERS ETC.	32
ISOPODS - WOODLICE ETC.	170
CHILOPODA - CENTIPEDES	23
DIPLOPODA - MILLIPEDES	95
INSECTA - INSECTS	91048
COLLEMBOLA - SPRINGTAILS	11
THYSANURA - 3 BRISTLETAILS	24
PLECOPTERA - STONE FLIES	4
EPHEMPTERA - MAYFLIES	3
ODONATA - DRAGONFLIES & DAMSELFLIES	8540
DICTYOPTERA - COCKROACHES	5
DERMAPTERA - EARWIGS	24
PHASMATIDAE - STICK INSECTS	1
ORTHOPTERA - GRASSHOPPERS & CRICKETS	228
ORTHOPTERA - GRASSHOPPERS ETC	134
ORTHOPTERA - CRICKETS	94
THYSANOPTERA - THRIPS	1
PSOCOPTERA AND ANOPLURA - PSOCIDS LICE, BOOKLICE E	7
HEMIPTERA - HETEROPTERA - TRUE BUGS	630
HEMIPTERA - HOMOPTERA - FROGHOPPERS, APHIDS	451
HOMOPTERA - FROGHOPPERS	22
HOMOPTERA - APHIDS	156
COLEOPTERA - BEETLES	1861
CARABIDAE - GROUND BEETLES	212
LADYBIRDS	154
MEGALOPTERA ETC - ALDER FLIES	1
NEUROPTERA - LACE WINGS	8
HYMENOPTERA - SYMPHYTA - SAWFLIES	119
HYMENOPTERA - PARASITICA - PARASITIC WASPS	116
HYMENOPTERA - ACULEATA - ANTS BEES WASPS	1367
MECOPTERA - STONE FLIES	7
TRICHOPTERA - CADDIS FLIES	1

Species name	Number of records
LEPIDOPTERA - MOTHS AND BUTTERFLIES	73990
MICROLEPIDOPTERA - MICRO MOTHS	11149
LEPIDOPTERA - BUTTERFLIES	26544
MACROLEPIDOPTERA - LARGER MOTHS AND BUTTERFLIES	62841
DIPTERA - TWO WINGED FLIES	3636
HOVERFLIES	2035
SCORPIONIDA - SCORPIONS	1
SPIDERS & HARVESTMEN	1117
OPILIONES - HARVESTMEN	155
ARANAE - SPIDERS	952
ACARI - TICKS & MITES	37
PYCNOGONIDA - SEA SPIDER	6
CRINOIDS - FEATHER STARS	2
ECHINODERMATA - ECHINODERMS	33
HOLOTHURIOIDEA - SEA CUCUMBERS	2
ECHINOIDEA - SEA URCHINS	1
ASTEROIDEA - STAR FISHES	17
OPHIUROIDEA - BRITTLE STARS	11
CHORDATA (UROCHORDATA) - TUNICATES	55
PROCHORDATES - ASCIDIANS ETC	55
ALL THE FISH	68
CHORDATA (VERTEBRATA = CRANIATA)	12679
AGNATHA - LAMPREYS & HAGS	1
ELASMOBRANCHS, CHONDRICHTHYES - SHARKS AND RAYS	7
PISCES (= OSTEICHTHYES) - BONY FISH	60
OSTEICHTHYES - STURGEONS	2
BONY FISHES	58
SALMONIFORMES - SALMONID FISH	2
AMPHIBIANS	122
CAUDATA - NEWTS & SALAMANDERS	9
SALIENTIA (= ANURA) - FROGS & TOADS	113
REPTILES	58
TESTUDINES - TORTOISES & TERRAPINS	2
SQUAMATA (SAURIA) - LIZARDS	42
SQUAMATA (SERPENTES) - SNAKES	14
BIRDS - AVES	11759
DIVERS, FISHING SWIMMING BIRDS, CORMORANTS, SHAGS	631
HERON, STORKS AND THE LIKE	166
GEESE, SWANS, DUCKS	1151
BIRDS OF PREY	431
GAME AND WATER BIRDS	395
WADERS AND THE LIKE	1468
GULLS, SKUAS	1128
SEAGULLS	1012
PIGEONS, DOVES, CUCKOOS	367
OWLS	24
ERINACEIDAE - HEDGEHOG	26
INSECTIVORA - INSECT AND WORM EATING MAMMALS	151
MAMMALIA - MAMMALS	672

Species name	Number of records
SORICIDAE - SHREWS	9
CHIROPTERA - BATS	157
LAGOMORPHA - HARES AND RABBITS	128
RODENTIA - RODENTS	69
SCUIRIDAE - SQUIRRELS	31
MOUSE LIKE RODENTS	37
CANIDAE - FOX	36
CARNIVORA - CARNIVORES	131
MUSTELIDS - OTTERS, BADGERS, WEASELS, STOATS	91
PINNIPEDIA - WALRUSES, SEALS, SEA LIONS	4
CETACEA - WHALES	4
MARINE MAMMALS	4
PORPOISES, DOLPHINS	2
HOOFED UNGULATES	32
CERVIDAE - DEER	32