BIBBA ANNIVERSARY CONFERENCE

BIBBA 50 ANNIVERSARY

SICAMM BIENNIAL CONFERENCE

HOSTED BY SOUTH CLWYD BEEKEEPERS ASSOCIATION

# Conference Programme

## Friday 26 ◆ Saturday 27 ◆ Sunday 28 September 2014
## The Pavilion, Llangollen, North Wales

*Hosted by South Clywd Beekeepers Association*

CADWYN Clwyd
Asiantaeth Datblygu Gwledig
Rural Development Agency

Cronfa Amaethyddol Ewrop ar gyfer Datblygu Gwledig: Ewrop yn Buddsoddi mewn Ardaloedd Gwledig
The European Agricultural Fund for Rural Development: Europe Investing in Rural Areas

LEADER

Llywodraeth Cymru
Welsh Government

B D I

**Lecturer:** **A. Rustem Ilyasov.** Russia
Institute of Biochemistry and Genetics
of Ufa Science Centre RAS.

I am a population geneticist and molecular biologist specialising in honey bees *Apis mellifera*. I have worked in the laboratory of biochemistry of insect adaptability since 2002 and I am studying the honey bee subspecies *A.m.mellifera* in Russia. In 2006 I was awarded a PhD degree.

We analyze polymorphisms of 9 chromosomal microsatellite loci ap243, 4a110, a24, a8, a43, a113, ap049, a88, a28, and also a sequencing of loci COI-COII, COI, ND2 mtDNA and loci EF1-a, Vg of nuclear DNA in the laboratory. We also identify diseases of honey bees by RT-PCR: American and European foulbrood, Ascospherosis, Nosematosis and Virus infections.

We also carry out biochemical research on the immunity of honey bees, and molecular biological research into the expression of genes of Vitellogenin, Defensin, Hymenoptaecin, Abaecin, Cytochrome C Oxidase subunit I and II, Cytoplasmatic Cu-Zn superoxide dismutase 1, Mitochondrial Mn Superoxide dismutase 2, Catalase, Thioredoxin reductase, Mitochondrial thioredoxin peroxidase 3, and Glutathione peroxidase I.

**Lecture:** *Isolates of Dark European honey bees Apis mellifera mellifera L. in the Ural Mountains (Russia)*

The Russian Urals contain a huge pool of dark European honey bees (about 500,000 colonies) mainly in two regions - the Bashkortostan republic (about 300,000 colonies) and Permskii Krai (about 200,000 colonies). Some of these bees "cave nest" in hollow tree trunks.

We have demonstrated their taxonomic identity with *Apis mellifera mellifera* by DNA analysis: by sequencing of loci at COI-COII and ND2 in the mtDNA and from polymorphism analysis of 9 chromosomal microsatellite loci (ap243, 4a110, a24, a8, a43, a113, ap049, a88, a28). We have located about five isolated populations of dark European honey bees in the Urals: in the national park Shulgan-Tash (South Urals), the wildlife area Altyn-Solok (South Urals), national park Bashkiriya (South Urals) in the Bashkortostan republic and the wildlife area Malinovyi Hutor (Middle Urals) and the national park Visherskii (North Urals) in Permaskii Krai. This Ural population of dark European honey bees could be a source for restoration of a gene pool of these bees in North and West Eurasia.

**Lecturer:** **Ethel Irvine.** Northern Ireland, Fermanagh BKA

Ethel took up beekeeping because of her memory of her grandfather working at his bees. He was a totally relaxed and gentle beekeeper, a state of euphoria which she says she has never managed to emulate. Once her youngest son was old enough to stay in the house when told to, she got her first bees. That was in 1982.

Ethel is a small scale beekeeper, with around eight hives in a home apiary. Her bees are native to the area as she has purposely not imported any bees from outside Fermanagh during the past fourteen years. Summer 2013 saw a departure from this as she introduced a queen from elsewhere in Ireland and is at present evaluating her performance.

Ethel is a member of Fermanagh Beekeepers' Association, where she served as Honorary Treasurer and their representative on the UBKA executive for many years.

She entered the FIBKA education system and obtained their highest qualification, that of lecturer, in 2000. Because of her background in education, it was only natural that