NOVEMBER 2019 NEWSLETTER

Welcome to our November newsletter, I apologise I am a little late publishing it this month.

My honey bees have gone into appropriate winter mode after a few sharp freezes. I have not needed to feed any of my hives this year as I have kept a super on them to hopefully get them through.

I will be however checking their weight, particularly towards the finish of the winter. Fingers crossed in the spring, I shall be happily looking at healthy colonies of bees. Now the torment of the winter wait!

If anybody would like to contribute a story, article or picture to the newsletter, please get in touch.

Again I am reminding all that we have set up a facebook page for members only who wish to join /discuss breeding groups.

Please use this facility, don't be afraid to ask questions and join in with discussions, it is a closed page, and only SNHBS members can see it. You must have a facebook account to use this.

We still have a vacancy among our Trustees for an Events Coordinator. Please consider joining us. I am sure there are many among you who are very talented and motivated. We only attend a few events a year, and hold our AGM once a year. Easy Peasy! Read the information below and please get in touch.

Finally, we wish all our fellow beekeepers and their families a warm and cosy winter. However you celebrate or enjoy the season, keep warm and happily plan for next year's beekeeping.

Dawn Rigby

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The pleasures of going native

Kate offers anecdotal observations of Amm and “local” colonies.

I am lucky enough to run some Amm colonies and I also keep a similar number of what I call “production colonies”. These are locally sourced Borders hybrids which I have bought since I moved here two years ago. I use these colonies to provide bees to support Amm queen rearing: populating nuclei, creating queen cell raiser/finisher colonies etc.

Inevitably have I found myself comparing the tendencies and behaviors of the two types of bees and I thought you might be interested in these observations. They are true of this year and these colonies but may, or may not, prove to be reliable characteristics in future seasons. I shall find out!

Build up:

My local bees certainly got off to an earlier and more vigorous start at the beginning of the season. Brood increase was slower and more gradual in the Amm colonies and, with an absence of enough drones, I had to postpone Amm queen rearing by a few weeks beyond the time I had expected to start.

Swarm preparations:

The difference in swarming tendency between the two groups was very marked though the age of their queens was similar.

Once the local bees had 6 or 7 frames of brood, they invariably began drawing queen cells. I was happy to increase colony numbers so I split them, thinking that would probably settle them for the season and I could use double brood boxes where necessary.

I expected the colonies with the new young queens, especially, to need little swarm monitoring. Not a bit of it. Two of those colonies started making swarm queen cells once their new queen was laying on 4 or 5 frames.

At that point I began to long for less swarmy lines!

I managed the Amm colonies in much the same way as the others and there was no evidence of swarming tendency amongst them in the Spring. The first queen cells I saw were in July, in two of those colonies, and then only one or two cells which looked as though they had supersedure plans. I didn't chance it though and split them both, which successfully created one new colony but the other virgin queen failed to mate successfully. I will know for sure in the Spring when I check the colonies thoroughly, whether any did end up superseding late in the season (my queens were all year-marked).

No swarms were lost from any of the colonies but it was a near thing with some of the "locals".

Late season foraging:

It's well understood that the dark bees forage in lower temperatures than their sub-species relations. This became particularly noticeable at the end of the season when the last of the Himalayan balsam was out and the ivy was finally flowering.

I have the impression the Amm were out and about in proportionately greater numbers and gathering a good deal more October nectar and pollen than the local bees. I hope it will stand them in good stead through the Winter and early Spring.

Temperament:

My Amm colonies are mostly Colonsay derived and, as you may know, Andrew Abrahams runs 60 or so colonies of remarkable peaceful and non-aggressive bees. He says he had some feisty colonies to start with when he first took Amm to Colonsay, but he has bred away from those that were too lively to work without gloves and with pleasure.

So, it is with the colonies I have. They are distinctly calmer and far more pleasurable to work than the "locals" some of which are really quite nippy – though fortunately there are none that greet you from metres away as you approach or follow you home.

The Scottish Native Honey Bee has a mixed reputation when it comes to temperament and much of this arises when because of cross-mating with imported species. All crosses are unreliable in temperament … hence the mixed and in some cases quite aggressive behaviour of my "locals". Stay with the pure or near-pure native and you can enjoy a peaceful bee which is a delight to manage.

I'll admit that I much prefer my "Always More Manageable" bees. Get it … Amm?

Kate Atchley

Flying the flag.

During the first weekend in September, the SNHBS banner was raised at the Dundee Food and Flower Festival, alongside the East of Scotland Beekeepers' Association (ESBA) exhibit. Although the SNHBS display was unmanned, it was supported by ESBA members when approached by interested parties who generally left with a flyer and were adorned by the day's must-have fashion accessory: a SNHBS Logo Sticker.

At the SBA Convention, held in Aberdeen on 14th September, Sandy Scott manned the SNHBS stand alongside the trade exhibitors. The exhibitors' area was busy prior to the presentations and during breaks and the SNHBS stand was approached by various SBA members to discuss the merits of the society's aims and progress on the survey project.

Two applications for membership were received, one from a gentleman who advised that he and a number of like-minded individuals believe that they have native bees and are looking to establish a breeding group in the Helensburgh area.

John Durkacz has subsequently held discussions with the party.

Sandy Scott

New website area for members only.

In order to provide as much benefit as we can for our members, SNHBS will be updating our website to include a members-only area.

In addition to back copies of the newsletter, it will provide exclusive access to detailed information on various topics, such as breeding group guidance, native bee identification, and additional resources. We'll be in touch with more information in the next couple of months, so watch this space.

Book Review: Thomas D Seeley

THE LIVES of BEES
The Untold Story of the Honey Bee in the Wild
Published by the Princeton University Press: ISBN 978-0-691-16676-6

Thomas D Seeley is the Horace White Professor in Biology at Cornell University and author of Following the Wild Bees, Honey Bee Democracy and Wisdom of the Hive as well as numerous scientifically acclaimed papers.

Tom Seeley visits Colonsay, 2019: photo Andrew Abrahams

Tom Seeley is no stranger to our shores. He has lectured widely in the UK and visited Colonsay to see native Scottish honey bees in their unique island habitat protected as a 'Black Bee Reserve'. He is also a patron of the Scottish Native Honey Bee Society, a position shared with Morna Stoakley past-editor of the Scottish Beekeeper and supporter of our native bees.

Although a scientist of world renown the author writes in a clear and accessible way that we can all understand. He is also a truly great 'field' scientist able to grab our attention. As a student preparing his thesis at Harvard he learned to apply the "know-thy-animal-in-its-world" rule learned from his adviser Bert Hölldobler. Tom is able to honestly say when he does not know the answer and share with us his discussions and ideas from students and colleagues.

As beekeepers most of our reading will have been about managed honey bee colonies but this book is quite different. It sets out to show that there are new discoveries to be made by studying bees living a truly wild existence and how those colonies survive and maintain their numbers. Although the focus is on the wild colonies in the forests of the North Eastern United States we are treated to a fascinating account of how honey bees have survived in their natural range throughout Europe, Africa and part of Asia.

The dark European honey bee was introduced to the north eastern regions of America in the 1600s and then followed a steady dispersal reaching deep into the interior by the end of the 1700s. From the mid 1800s there was an increasing importation of queen honey bees from other subspecies in Europe which were favoured by American beekeepers so that genetic studies of wild colonies in the USA show that the influence of pure mellifera genes is much reduced now.

Professor Seeley tackles the difficult question as to whether honey bees are domesticated as many seem to imply. The life of dairy cattle is manipulated to a huge extent to boost their productivity, so much so that they would struggle to survive without continuing human intervention. They are vastly different from their ancestors. But it is different with honey bees.

It was not until the early 1900s that breeding and selecting honey bees for particular traits became a realistic possibility. Disease resistance and ability to cope with pests can be selected for but the ability to do this has been around for less than a hundred years. The available tools have not been applied consistently or with enough persistence and most queens will mate outwith any human control, in the air high up and well away from their colonies. This means that in most places genetic selection remains subject to natural elements and honey bees have not visibly changed over millions of years. At best they are semi-domesticated as we have altered the environment so much and modified their homes in the form of moveable frame hives but their return to nature is but a short journey into a hollow tree. Once a swarm leaves a hive and takes up residence in a cavity and builds a nest it carries with it the ability to adapt and survive. As the author says they have the full toolkit for survival.

Tom Seeley describes the heavy losses that commercial beekeeping operations in the United States now suffer and looks at how colonies living wild in the Arnot Forest (New York State) have survived despite the heavy colony losses caused by Varroa. Without any intervention by man they have made a gradual return to their former levels and now appear able to cope with Varroa. The reasons for this are complex and explained in the book in fascinating detail. Recent genetic testing has shown that the Arnot Forest honey bees reflect closely the 400 year history of importation of bees from Europe with a decreased component of dark bee genes and increased levels of Carnica and Ligustica genes but now there is a tiny percentage of bees of clear Africanised descent. Despite this they are “impressively skilled at living there in the northern forests”, in Tom’s own

words, even with far more severe winters compared to their European ‘homelands’. For those who are purists in the search for true dark Scottish native bees, where does that leave us? Worth considering and thinking about but I believe there are answers.

This book is primarily about survival of wild bees in northern forests and how they choose cavities in trees at preferred heights, with smaller entrances, usually south facing; the insulation provided by the trunk walls, lined by propolis collected by the bees.

A secure home where they can evade detection and have a chance of defending themselves. All these and more are behavioural traits honed by millenia of evolutionary pressures.

The naturally occurring density of these colonies in the wild, the swarming that is a necessary part of survival, something that beekeepers so desperately seek to control. All this is carefully considered by the author with nothing being taken for granted.

Simple but elegant field experiments and observations are described which lead to logical conclusions. He is after all a ‘bee scientist’ but one with a deep respect for the honey bee.

The apparently low survival rate of swarms in the wild and the natural colony density of around 1 per kilometre of woodland is striking when we are accustomed to seeing hives lined up in rows and close to one another. It seems that swarming and smaller wild colonies have a significant part to play in reducing Varroa and disease transmission. Also insights from honey bee genetic studies done more recently show that these wild bees have been pushed through a genetic ‘bottleneck’ and the wild colonies living in the Arnot Forest are descendants of a smaller number of queens. There have been changes in the bees’ genes scattered across 634 sites in the honey bee genome and about half of those seem related to bee development. Worker bees collected in 2011 are markedly smaller in body size than those from 1977 studies but the reasons for this remain unknown.

The final part of the book relates to what the author calls ‘Darwinian Beekeeping’. Here he lists the differences between managed and wild colonies and how this might adversely affect the bees. An obvious comparison is that wild colonies are genetically adapted to their location and moving bees over great distances forces them to live in environments they are not suited to.

The colonies in each subspecies are further adapted or ‘fine-tuned’ to their own localities within their broader geographic areas.

The other differences are where man has imposed unusual conditions on honey bees forcing them to have larger colony sizes, living without a propolis ‘envelope’, disrupting the colony nest, frequent manipulations and so on.

The author admits that his concept of Darwinian beekeeping could be called by other names such as apicentric, natural or bee-friendly beekeeping but “whatever the name the aim is the same”. Commercial beekeeping practices risk disrupting the lives of bees.

We should be considering working with bees and recognising their needs and using their adapted abilities to cope with the environment in a less stressful way. There are beekeepers already doing just this. Some have quietly gone down this route by gut feeling because it suits their way of living and deep down they love nature. Others have taken a stance as ‘natural beekeepers’ and unfortunately conventional organisations have been too happy to alienate them and blame them for being unrealistic.

This is a real shame as it is a loss to both sides. It is difficult to find a solution as conventional beekeeping practices have led to tremendous gains in knowledge which would not have been the case with a truly natural non-intervention system.

Tom Seeley’s book marks an important milestone in beekeeping literature. The style of writing is calm, lucid and full of knowledge.

He willingly divulges something of his childhood which explains his deep respect for nature and his knowledge of how evolution works.

There are many lessons for beekeepers here.

I have already returned to this book several times and enjoyed dipping into it here and there as well as having to re-read parts to gain a proper understanding. This, to my mind, is what a good book is about.

One message I take home is that having ‘wild honey bees’ living around us again would provide a useful genetic resource and allow an exchange of genes through mating and stray swarms that might benefit our managed colonies.

John E Durkacz
November 2019

SAMMBA funds reminder

SNHBS now has a fund to provide financial support for members’ breeding groups and some other activities.

The money came from the winding-up last year of Arnamurchan’s Amm project and the Sunart, Ardnamurchan, Moidart & Morvern Beekeepers Association. Hence we call it The SAMMBA Fund.

SAMMBA donated its money and equipment-proceeds to SNHBS (about £3600), requesting that SNHBS members be invited to apply for specific types of funding and the Fund be administered by three SNHBS trustees or former trustees.

SNHBS' members may apply for funds for the following purposes:

1. match funding for the breeding of Scottish Amm stock up to a maximum of £400
2. paying relevant course fees for those involved in Amm breeding groups in Scotland up to a maximum of £50 per course and once per annum
3. match funding for DNA analysis of bees from SNHBS Conservation Project or members' breeding groups
4. funding video teaching materials (initially on the history and characteristics of Scottish Amm).

When assessing applications for purpose (1) above, priority will be given to Scottish breeding groups rather than individuals.

The £400 funding maximum applies to each applicant (member or group) within each calendar year, even if funds are sought for more than one of the purposes above.

Funding will be restricted to members who are currently not-for-profit beekeepers and unlikely to make a profit from breeding Scottish Amm within two years.

Consideration will be given to other relevant applications.

Application process

Members are invited to complete the application form available from the Application Custodian, Kate Atchley.

The three Custodians will each consider the application and share their conclusions. The decision will be by majority of the three custodians. The Application Custodian will write to the applicant notifying acceptance or explaining refusal.

Those receiving funding will be encouraged to submit periodic reports on the progress of their group's activities or their own beekeeping, as applicable.

Kate Atchley

SNHBS Events Coordinator

If you've been looking for ways to get more involved with SNHBS, we might have just the opportunity for you:

we’re looking for a volunteer Events Coordinator to help us organise member events and exhibit space at events such as the Royal Highland Show.

The role is, ideally, a Trustee position.

Besides Trustees’ support, the Coordinator could “recruit” other members for additional volunteer help. In this role, you’d be:

- Managing all SNHBS events
- Liaising with event organisers
- Managing logistics (booking venues & catering)
- Using booking software (e.g. Eventbrite) for sign up
- Organising marketing materials (banners, leaflets etc)
- Coordinating volunteers
- Communicating with attendees
- Liaising with the Trustees
- Liaising with the Treasurer to manage budget and expenseS
- Coordinating events announcements and write-ups for the SNHBS website and newsletter
- Seeking out new events that could fit with SNHBS objectives and aims Presenting proposals to the Trustees

We currently have two main member events - the Annual Meeting and workshops to Identify those Native Bees – and have been given space within the SBA tent at 3 large public events.

Event Coordination/Project Management experience would be a plus, but great organisation, planning and communication skills are the most important attributes for the position.

If you think this might be a role for you or if you’d like to learn more, please reach out to the SNHBS secretary.

Thank you.
SNHBS