The summer 2019 issue of Bee World will bear the volume number 96 which is quite correct. However, the month of June marks exactly 100 years since the first issue came out in 1919. The journal Bee World has in its long history made some transitions. The different appearances and evolutions of Bee World until 2005 were summarized by Showler (2010). Here, we focus on the editorial history of the past 100 years of Bee World.

**The Abushâdy years**

The journal Bee World was founded by the Apis Club in 1919, then under the name *The Bee World*, which it continued to use until 1952. The journal can be regarded as the brainchild of Dr. Ahmed Zaki Abushâdy (also transliterated as Abu Shadi). Abushâdy was born on 9 February 1892 in Cairo (Egypt) and qualified as a medical doctor from London University in 1917. According to his granddaughter, Joy Garnett in communication with Richard Jones, he was “a physician, bacteriologist, beekeeper, agricultural and social reformer, poet, publisher and feminist who defies categorization!” He lived in England 1912–1922 and it was in 1919 that he set up The Apis Club at Port Hill House, Benson, Oxford (see Carreck, 2014 for a recent picture of the house). This was to be an international organization for scientifically inclined beekeepers. *The Bee World* was the periodical of the club. Abushâdy considered *The Bee World* “an international monthly journal devoted to the progressive interests of modern bee culture” (Abushâdy, 1919). He was truly a romantic and a poet and part of his editorial in that first journal read as follows: “Science and education have no regard for geographical boundaries, nor for the much abused gospel of nationalism … The advancement of the human race … demands from all people mutual help, a freer exchange of thought and the establishment of international spirit in every branch of culture” (Abushâdy, 1919). These are high and worthy aims and he seemed to have been innovative in making hive improvements, as demonstrated by constructional drawings in the first issue of *Bee World* (Abushâdy, 1919). He took out four patents related to beekeeping, the most well-known being a metal comb foundation (GB Patent No. 150502-A; Abushâdy, 1920) and an incubator for the artificial hatching of queen bees (GB Patent No. 138448-A; Abushâdy, 1920). When the couple moved to Egypt, they introduced the Langstroth hive and other beekeeping equipment and procedures to the country.

In Egypt, Abushâdy founded, in 1930, the “Bee Kingdom League” – the Egyptian counterpart to the Apis Club. In his home country, he is even more famous for the foundation of the influential journal for experimental Arabic poetry “Apollo” in 1932 (Ostle, 2000). He continued to edit *The Bee World* from his base in Egypt. It gently drifted along supported by the enthusiasm of the Apis Club members and in particular one or two affluent beekeepers. The journal now had an established pattern including serious original articles, reports from supporting associations and features which were to remain for...
many years such as book reviews in “Our Bookshelf” and “The Press Mirror” which reflected items of interest drawn from the beekeeping press worldwide. Abushâdy died on 12 April 1955 in Washington D.C. suffering a stroke. In Alexandria, a street near his home is named after him and an Egyptian postage stamp issued in 1992 honors his memory (Figure 2).

Captain James Bernard Morgan

In March 1926, one of the prime benefactors of the journal, Richard Whyte, died before he could fulfill his intention of setting up a fund to give the club and the journal some financial security (Tinsley, 1925, but published April 1926). The financial struggles of *The Bee World* in the first 6 years of its existence are chronicled in the journal by Whyte (1925).

The year 1926 also saw some other important changes. Production was moved to London and, in August, Captain James Bernard Morgan (Table 1), became the new Editor. He had been the secretary of the Apis Club since 1923 and had worked tirelessly to put it on a firmer financial footing. He now set about applying his skills to *The Bee World* and his first task, and one that was to be high on the priority of successive Editors, was to stabilize the journal’s position as well as drawing in a wider readership. He set about doing this by reducing the typographic clutter and sharpening the print style which up to then still had a turn of the century feel. As an Editor he retained sub-headings using a modern script as his choice although it seems that the printers were rather wayward and often changed the print font on a whim so that any form of house style was ignored except for the editorial which retained a gentle form of Gothic script.

The mid-twenties were something of an in-between time for bee science and apicultural development. The huge innovative steps that ushered in modern beekeeping techniques in the 1850s and 60s were well established and the problems and scientific advances of the mid twentieth century were still in the undreamt of future. Things were slow moving and so there was plenty of time for beekeepers to indulge in their favorite pursuit of heated arguments often over unprovable facts.

Morgan was keen to foster the international aspect of bees and beekeeping. In 1927 the first, truly international conference of the Apis Club was held under the presidency of the American Dr. E. F. Phillips (now remembered in the Frank Phillips library at Cornell University and online). Morgan was part of the planning team for the August 1929 International Conference to be held at the Institut für Bienenkunde, the Berlin base of the new President, Professor Armbruster. However, James Morgan died suddenly in June from a respiratory condition, the result of the after effects of gas attacks in World War I.

20 years of Annie Betts

After the death of James Bernard Morgan in 1929, Annie Betts took over as an Editor. She had carried out research on bees since 1908, mostly on pollen and hive fungi, but also authored and edited books on honey bees (Spiller, 1950). Annie Betts was appointed a Director and Secretary of the Apis Club and Editor of *The Bee World*, on a 3-month probationary term, in July 1929. She was to remain in the post for the next 20 years, not of her own choosing, as she states in her farewell as Editor (Betts, 1949)!

Miss Betts had been a member of the Apis Club and her interest in bees went back to her childhood. She was already established as an important contributor to serious bee literature. In her article on “The Fungi of the Beehive” (Betts, 1912) she referred in particular to *Pericytis alvei* and it is noteworthy that in 1972 this fungus was put in the genus *Bettsia*, a name created in her honor (Skou, 1972).

Annie Betts was an able mathematician and came from a family with
Table 1. Editors of Bee World.

| Years active | Name (Nationality, life dates) |
|--------------|--------------------------------|
| 1919–1926    | Ahmed Zaky Abushady (Egypt, 1892–1955) |
| 1926–1929    | James Bernard Morgan (UK, 1891–1929) |
| 1929–1949    | Annie D. Betts (UK, 1884–1961) |
| 1949–1985    | Eva Crane (UK, 1912–2007) |
| 1985–1988    | Margaret Adey (UK, 1954–2014) |
| 1988–2005    | Pamela Munn (UK, 1956) |
| 2010–2014    | Richard Jones (UK, 1944) |
| 2014–2017    | Kirsten Traynor (1981, USA) |
| Since 2018   | Robert Brodschneider (Austria, 1976) |

Eva Crane’s long and lasting influence

1948–1949 would see the most tremendous changes and the dynamic development of the journal as it came under the influence of Eva Crane. In 1949 Dr. Crane, who was living in Hull, England, and working in the physics department of the university there, took full charge. The front room of her home at 55 Newland Park became the offices of her newly established Bee Research Association (BRA) and the de facto editorial offices of The Bee World (Figure 3). A plaque was unveiled there in 2012 by Richard Jones and Chris Coulson, of the Yorkshire Beekeepers Association, to honor what would have been Eva Crane’s 100th birthday (Jones, 2012). She started a modernization process with vigor. BRA, which was always international but did not add the “I” to its title until 1976, now owned the journal.

Dr. Crane became aware that although bees were kept in hives in most parts of the world and much had been written about them there seemed to be no access route or central repository for the wealth of information on the subject. In the space of a few years, the business of collecting, collating, and disseminating information about bees and beekeeping became the dominant task in her life. When she took over editorship of The Bee World it was already a well-established journal and an international link between beekeeping science and practice (Walker & Jones, 2008).

Out of this grew a second source of information, Apicultural Abstracts, which originally was included in the back pages of The Bee World. This section had the express aim of linking isolated workers, institutes, and beekeepers with the research that would help them. Before long, the rapid expansion of scientific research and the resulting amount of published material needing to be covered, led to it becoming a stand-alone journal in its own right. In its 55-year history this journal recorded over 60,000 abstracts and remains a valuable and comprehensive database. It was truly a miracle of its time. It was absolutely unique and invaluable and most of it is still accessible in digital form today through the Eva Crane Trust (www.evacranetrust.org).

In 1952, the journal became Bee World, dropping “The,” and the page size was reduced to 135 mm × 210 mm (Crane, 1952). This year also saw a new cover design based on F. V. Botley’s projection of the world map in three hexagons (Figure 1). The smaller page led to the text taking up just one column as opposed to the previous two columns and new features such as “Notices and News” appeared. The year 1962 saw the publication of an index for the first 30 volumes (1919–1949), a work of some magnitude undertaken by Dr. D. J. Campbell and Mr. G. P. Henderson. It has apreface and user instructions in English, French, and German (Campbell & Henderson, 1962).

The same year saw another offshoot – the Journal of Apicultural Research. Now also in the Taylor and Francis portfolio it remains to this day the premier English language vehicle for the publication of cutting edge apicultural research (Carreck, 2011). In 1966, Bee World became quarterly and was styled “a journal of the Bee Research Association” making it, at that time, one of three quarterly publications, all of which were edited by Dr. Eva Crane. In 1976, BRA officially became IBRA, recognition of what it had always been – an international organization. While in 1977, Bee World entered into a formal agreement with the International Commission for Plant Bee Relationships (ICPBR) making it the official organ of the organization.

Adiey and Munn

The mid 1980s was a time of troubles and turbulence for both IBRA and Bee World. In an editorial titled “Supersedure,” Crane (1983) announced her impending retirement at the end of 1983. Her intention was to concentrate on writing books which indeed have become seminal works in the world history of beekeeping (Walker & Jones, 2008). From January 1984, the new Director of IBRA (and therefore responsible for its journals) was Cambridge graduate Dr. Margaret Adey. From the second issue of the year she took on the work of editing the journal.
Quite remarkably she was the first Editor who was actually a biologist, specifically plant taxonomy, but with training in the whole process of bee–plant relationships. At this time Associate Editors were Professor N. E. Gray of the USA and Dr. Niko Koeniger of the German Federal Republic.

Financial difficulties, never far away for the organization, again came to the fore in 1986. The remedy on this occasion was to sell the headquarters building at Hill House, a listed historical building not far from Dr. Crane’s home in Gerrards Cross, and purchase, at a very reasonable price, the buildings at 16/18 North Road, Cardiff. These had been owned by the University and had the facilities to house the ever growing IBRA library. The huge logistical task of moving everything from Gerrards Cross, and purchase, at a very reasonable price, the buildings at 16/18 North Road, Cardiff. These had been owned by the University and had the facilities to house the ever growing IBRA library. The huge logistical task of moving everything from Gerrards Cross 150 miles (240 km) to Cardiff fell to IBRAs then technical officer Karl Showler.

The relocation to Cardiff did not suit the domestic arrangements of the newly married Dr. Adey and so, at the beginning of 1987, she regrettfully resigned. However, some continuity was ensured for the journal as Dr. Pamela Munn, a Cardiff University biology graduate, who had gained her PhD with a study of “The Mushroom Bodies of the Bee Brain,” had been appointed as assistant to the Editor. This was upgraded at the end of 1987 to Assistant Editor.

A new Director/Editor was appointed from September 1987 and that was Vince Cook who moved from the position of beekeeping specialist with the UK Ministry of Agriculture. He had the highest of beekeeping credentials having had his first hive at the age of twelve and then worked, in the UK and overseas, with bees either in research, the commercial sector or latterly in governmental administration. However, his tenure of office was all too short as he died suddenly in March 1988 (Griffiths, 1988). Pamela Munn became acting Editor and was soon appointed full time Editor.

One of the first things she did was to issue a clear set of guidelines to would-be contributors to the journal and to take a look at the structure of *Bee World*. That structure was as shown in Table 2. As can be seen, under Pamela Munn’s editorship some major changes occurred. The main body of the material was subject to peer review and items such as news and conferences came under a section entitled “The Buzz.” This gave rise to original articles having long lists of references attached, though references had been included before. The journal had, in essence, become a junior version of the *Journal of Apicultural Research*.

Some other changes also took place. In Volume 72, the second issue of the year for some inexplicable reason, the cover changed. For many years it had followed the international color code used to mark queens – white (or silver), yellow, red, green, blue – now it changed to a broad band of color down the spine side with the title written vertically sideways from bottom to top and a tinted photo, using a light touch of the same color (just the one color), that was relevant to an inside article. The print layout changed too: articles in *The Buzz* section reverted to double columns although the text in the main articles still occupied the width of the page. The last issue of Volume 75 in 1994 saw the most eye catching innovation yet with a four page center spread of bee related postage stamps in full color (Shaw & Ching, 1994). In 1996 the cover changed again with fashion and became less strident. The same one color wash was used but the title was across the top and once again reverted to the annual colors used for queens (Figure 1).

Richard Jones as Director of IBRA was still fighting to establish some financial security for the organization and encouraged the next big transformation. This was a huge effort to give the journal a modern and relevant appearance by producing it not only in full color throughout but also in A4 size. This occurred in Vol. 85, No. 1, March 2004. Pamela Munn was still Editor and Dr. Crane and Dr. William Kirk were listed as Associate Editors. The sub-title to the journal was: *The International Link Between Beekeeping Science and Practice*.
So it was and Richard Jones hated it. He felt that members and loyal readers, many of whom had stuck with the journal through thick and thin, had been deprived of what they really wanted. Having had the privilege of travelling, meeting with and talking to a wide range of readers worldwide he felt he knew the balance readers wanted in a journal and the format being presented to them in the single amalgamated journal was not it. He did his best to bridge the gap with, a thin, quarterly bulletin called “Buzz Extra” based unashamedly on “The Buzz.” This tried to provide beekeepers with interesting items beyond pure science – wide ranging material but not without substance.

Not feeling like retirement in 2009, Jones decided to retire as full time Director but asked the Governing Council if he could work part-time, bring back and edit Bee World. To his absolute joy they agreed and that is why the March 2010 issue is Volume 87 number 1. The gap that makes the volume numbers different from the actual age of the journal came between 2005 and 2010. Richard Jones felt it a great honor to steer a journal, which is revered by many, through the next five years. It was reassuring for the journal’s prospects when it became clear that it would transfer into the established and highly professional publishing hands of Taylor and Francis, on behalf of IBRA (Anonymous, 2014). IBRA had done a good job and now was the time to hand over gracefully. Sadly, there were those who did not agree and to his regret Richard Jones was never allowed to publish his farewell to the readers. Here it is now, better late than never: “It has been a pleasure and a privilege to be the Editor of Bee World for the last five years. I am very grateful for the support I have received from the contributors and the readership – many of you I regard as good friends... I do not feel I can continue any longer as I think IBRA has served its purpose and should be closed with honour. However, there are those that see things in a different light and so I hand over this journal to their care – Goodbye, Farewell, Amen.” (Richard Jones 28 August 2014).

**Today and tomorrow**

In 2015 Kirsten Traynor, an American researcher thereby enhancing the journal’s already laudable international outlook, was appointed Editor (Traynor, 2014). However, her time was all too brief before she moved on to other things (Figure 4). So in 2017 the present Editor, Robert Brodschneider, an Austrian biologist and bee researcher working at the University of Graz, was appointed (Brodschneider, 2017). In 2018, an editorial board was established, to further promote the quality and development of the journal. The editorial board seeks to cover all continents and is currently comprised of Karina Antúnez (Uruguay), Maria Bouga (Greece), Stephen Devanesan (India), James D. Ellis (USA), Wanja Kinuthia (Kenya), Martin Kunz (UK), and Maja Smodiš Škerl (Slovenia).

**Remarkable contributions**

*Bee World* has published more than 6,500 articles during the last 100 years. All contributions have been made available electronically on the journal’s website at Taylor and Francis. It is difficult to highlight any particular article, but the impact of scientific articles can be estimated for example by the number of references or electronic downloads an article achieves. The website of Taylor and Francis provides up to date statistics on citations and article downloads from their website (though there are also other sources to obtain the electronic version of an article). The download numbers suggest, that at present two very recent articles on natural resilience of honey bees against the varroa mite (Blacquière & Panzier, 2018; McMullan, 2018) are the most read, which underlines the interest of readers in scientific discussion of real world problems. Among the most cited articles naturally older articles are included. This list is dominated by a methodological article and followed by review articles of general interest to the honey bee community (Table 3). *Bee World* articles from 1977 to 2005 are indexed in Clarivate Analytics’ Web of Science. According to this, the article by Louveaux, Maurizio & Vorwohl (1978) was cited more than 735 times, which means on average this article was cited

### Table 2. Article sections in Bee World after Pamela Munn’s revision.

| Features                    | The Buzz                                      |
|-----------------------------|----------------------------------------------|
| Editorial/guest Editorial    | IBRA News                                    |
| Original articles*          | World News                                   |
| Beekeeping techniques*      | Conference calendar*                         |
| Bee Products*               | ICPBR News                                   |
| Innovations*                | Science round-up                             |
| Profiles                    | Library notes and acquisitions               |
| Travel guide                | Bookshop                                     |
|                             | World honey crop report                      |
|                             | Letters                                      |

*Refereed items are indicated.*
every three weeks in the last 40 years. Google Scholar even found more than 1,300 citations of this article. Outstanding authors in the past include Nobel Laureate Karl von Frisch, Brother Adam, Friedrich Ruttner, and Ludwig Armbruster, to name just a few. We hope that many today’s authors will be regarded as important authors in the future and invite you to become part of the history of this journal.

Disclosure Statement
No potential conflict of interest was reported by the author.

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