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FOREWORD TO THE SPECIAL VOLUME OF *ANNALES SOCIETATIS GEOLOGORUM POLONIAE* (ASGP)

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This collection of papers on continental ichnology stems from the 2nd International Conference of Continental Ichnology (ICCI 2017 – https://sites.google.com/site/icci2017conference/home). The event was held in Nuy Valley in the Western Cape Winelands, and was followed by a field trip across South Africa to Lesotho from 1 to 8 October 2017 (Figs 1, 2). Organised by Associate Professor Emese M. Bordy and the post-graduate students in her Sedimentology–Palaeontology Research Group at the University of Cape Town, the conference was attended by 50 international delegates from Canada, USA, Uruguay, Argentina, France, Germany, Sweden, Switzerland, Russia, Spain, UK, Italy, Poland, South Africa and Lesotho (Fig. 3).

This was the second occasion for this biannual international conference after the initial meeting (ICCI 2015) was successfully hosted by the Faculty of Sciences in the Chouaïb Doukkali University (El Jadida, Morocco) from 21 to 25 April 2015. The 3rd International Conference of Continental Ichnology is already planned to take place in the Central Natural Science Collections (ZNS) of the Martin Luther University in Halle (Saale, Germany) from 23 to 29 September 2019.

Like all ichnology conventions, the ICCI meetings are also elevated by the spirit of collaboration, networking and bringing students and specialists together. To this end, the ichnology was in full swing at the 2nd ICCI, especially since

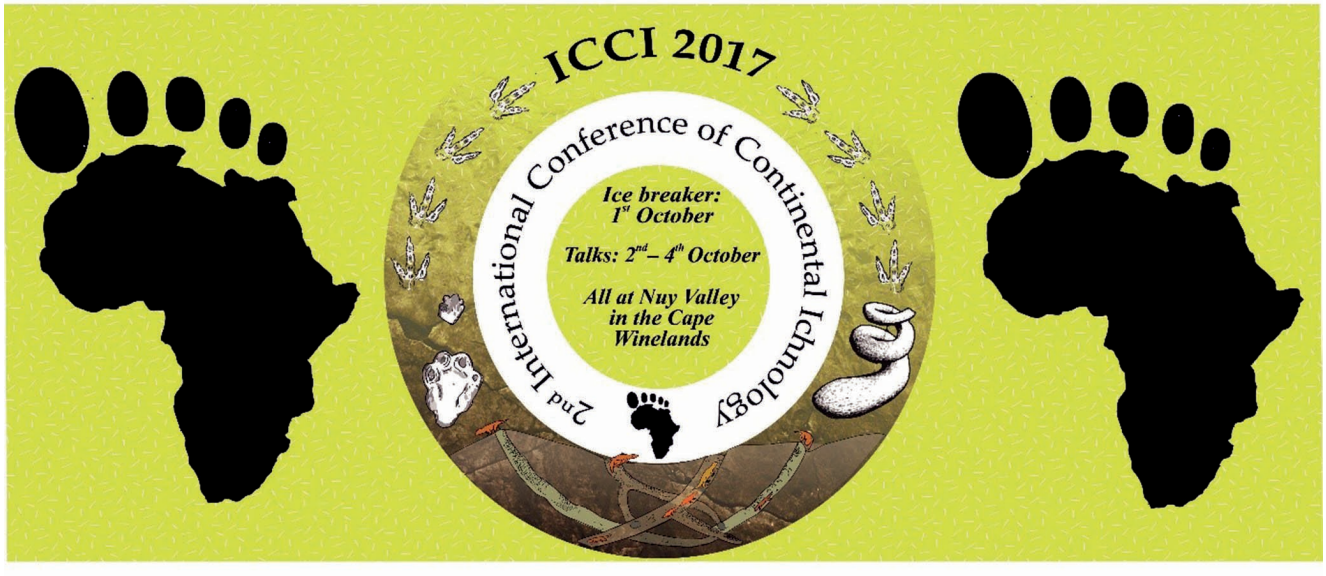

Fig. 1. Logo of the 2nd International Conference of Continental Ichnology (ICCI 2017).

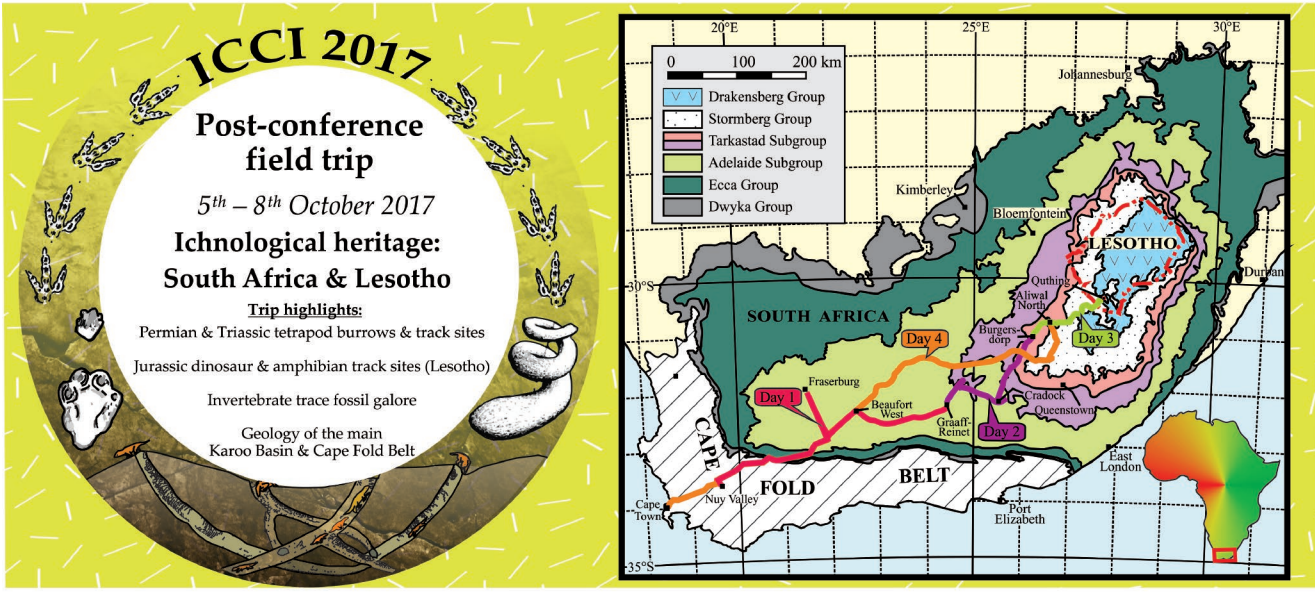

Fig. 2. Field trip logo and route in southern Africa during the ICCI 2017.

the meeting was held amidst the blooming vineyards of the Western Cape Winelands, which, of course, ensured that one evening was devoted to wine tasting. While visiting wineries usually requires long-distance driving from conference venues, this time we could just walk across the street to taste the specialities of Nuy Valley under the guidance of the resident winemaker. It was also a real pleasure walking in the lush gardens around the venue during breaks and discussing projects and future ideas with colleagues from all over the world. The conference dinner was delightful and finished with a party where, at a certain point, everybody was dancing to old tunes such as those by the Rolling Stones. The jovial spirit stayed high during the post-conference field trip when we visited some of the world-famous ichnological localities in the main Karoo Basin of South Africa and the mountain Kingdom of Lesotho. One of the highlights of the field trip was to follow in the footsteps of one of the most prominent vertebrate ichnologists of the area, French palaeontologist Paul Ellenberger. Visiting the Masitise Cave House, the Ellenberger's homestead – with dinosaur tracks in the kitchen ceiling! – and taking a closer look at some of the dinosaur track localities he discovered in lower Moyeni (Quthing, Lesotho) were memorable moments for all of us. The conference was preceded by a successful workshop on photogrammetry applied to ichnology, held at the Department of Geological Sciences of the University of Cape Town. Instructed by Dr Belvedere, some 40 ichnologists and university students spent the day mastering various digitizing and 3D modelling techniques applied to ichnological samples.

To showcase the outcome of ICCI 2017, the fully illustrated proceedings of the conference were published in the 52nd volume of *Palaeontologia Africana* (ISSN 2410-4418) in March 2018 (http://wiredspace.wits.ac.za/handle/10539/24150). In addition, here we have the honour to showcase a collection of six/seven full-length research papers that are organized according to the age of the trace fossils presented, ranging from the Permo-Triassic to Late Cretaceous.

We start the volume with Andy Rindsberg's contribution, which was also a keynote talk at the meeting. He legitimately claims that ichnotaxonomy must be repeatable otherwise it is not science. He pleads for a uniform approach in ichnotaxonomy, drawing inspiration from the taxonomy of body fossils. Only a holistic approach that includes standardized procedures as well as avoidance of taphonomic and human bias will help to achieve this goal. Above all, Andy pleads for cooperation; we hope that this meeting prepared the ground for such an important step.

Ausonio Ronchi teamed up with Giuseppe Santi, Lorenzo Marchetti, Massimo Bernardi and Piero Gianolla to dive into the Late Permian "Bletterbach ichnoassociation" of the Val Gardena Sandstone in the Dolomites of northern Italy. They present fish trace fossils from Permian (Lopingian) and Early Triassic (Smithian) strata, representing the oldest Mesozoic record of fish trace fossils in northern Italy. They are consistent with the fossil association found in the Val Gardena and Werfen Formations, and reflect swimming activity in brackish distal-floodplain to marginal-marine as well as in inter- to subtidal environments.

By combining ichnofossil assemblages and palaeosols, Sean Fischer and Steve Hasiotis use ichnopedofacies to interpret palaeoenvironmental variations and to estimate palaeoprecipitation in the Upper Triassic Chinle Formation (USA). They show that monsoonal conditions persisted on the Colorado Plateau until the end of the Triassic, and that decreasing precipitation probably resulted from the northward migration of Pangaea.

Akhil Rampersadh, Emese M. Bordy, Lara Sciscio and Miengah Abrahams take a closer look at dinosaur behaviour in an Early Jurassic palaeoecosystem of southern Lesotho. Evidence from the sedimentology of the uppermost Elliot Formation suggests that theropod-like dinosaurs left their tracks under semiarid conditions in a climate with heavy storms and flash flooding. The remote Ha Nohana locality also reveals unique insights into sediment consistency at

Fig. 3. Delegates at the ICCI 2017 during the conference dinner in Nuy Valley.

the time of track formation. The palaeosurface records both small-to-medium sized theropods that walked over ripple marks in firmer moist sand, and a larger theropod that waded across the waterlogged sand.

Derek Raisanen and Steve Hasiotis present vertebrate burrow casts from the Late Jurassic Morrison Formation of south-eastern Utah in the USA. These large burrow casts occur in pedogenetically overprinted floodplain deposits. The helical burrow casts penetrate deep into the substrate forming a network of connected tunnels and shafts. The tracemaker was likely a fossorial social mammal and the burrows were used for protection, denning and foraging.

Sandra Barrios de Pedro and Angela D. Buscalioni describe their study of coprolites from the famous Upper Cretaceous Las Hoyas Lagerstätten in Spain. They recognized twelve morphotypes that are assigned to three digestive strategies. These include short processing in the mouth as well as fast defecation, masticating prey and a long defecation time, as well as mastication and long food retention time in the digestive system. The study represents a first attempt at the site to infer feeding ecology from coprolites in the lacustrine ecosystem.

Christian Meyer, Daniel Marty and Matteo Belvedere present a study on the titanosaurid trackways from the largest dinosaur tracksite in the world located at Cal Orck'o in Bolivia. The Maastrichtian track-bearing rocks formed in a lacustrine environment and reveal 12092 individual dinosaur footprints in 465 trackways. Two morphotypes of sauropod tracks are present and some can be followed for more than 300 m. The first morphotype with the more rounded manus can be attributed to a derived titanosaur (possibly a saltasaurine). The second is attributed to the new ichnogenus *Calorckosauripus* and was probably left by a basal titanosaur.

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This special volume would have been impossible without the support of the international sponsors of the conference (Fig. 4), the Polish Geological Society, and last but not least, the camaraderie of our ichnological community.

Fig. 4. Sponsors of the ICCI 2017, from left to right, Palaeontological Scientific Trust (PAST), Geological Society of South Africa (GSSA), International Association of Sedimentologists (IAS), Society for Sedimentary Geology (SEPM), National Research Foundation of South Africa (NRF), Centre of Excellence in Palaeosciences (NRF-DST COE PAL), Council for Geoscience South Africa (CGS) and University of Cape Town (UCT).


ICCI 2017
International Conference of Continental Ichnology
2nd
1st - 4th Oct. 2017
Nuy Valley
Western Cape
5th - 8th Oct. 2017
South Africa
&Lesotho