A six-day International Conference entitled ‘Gondwana 11’ on correlation and connections of various continents of the Gondwanaland Supercontinent assembly was organized during August 25–30, 2002, at the University of Canterbury, Christchurch, New Zealand. Gateway Antarctica, New Zealand, was the chief organizer and Prof. Bryan Storey was the Conference Convener. The Conference was linked to the IGCP 436 and 453. About a hundred participants from over twenty countries participated in the Conference and 108 abstracts were accepted out of which around 70 oral presentations and 15 poster presentations were made. The following themes were covered: (1) Gondwana assembly, (2) Gondwana margins, (3) Gondwana sequences: stratigraphy, colonization and deformation, (4) Gondwana breakup and dispersal, (5) Ancient orogen and modern analogues, (6) Gondwana palaeoclimate and (7) Gondwana margins.

Ice Breaker was held on the evening of August 25 with an informal welcome address by the convener. The session started in the morning on August 26 with the official welcome address by Prof. Daryl Le Grew, Vice Chancellor, University of Canterbury, followed by the opening address by Prof. Maarten de Wit, Chairman of the Subcommission of Gondwana Stratigraphy, University of Cape Town on ‘Gondwana in Wander land: new views through an old looking glass’. The following salient points were discussed.

Gondwana Assembly

Evidence from the northwest margin of the Borborema province, north east Brazil with regard to the breakup of Rodinia assembly at 777 Ma that succeeded the formation West Gondwana was presented by P.C. Hackspacher. He also discussed the nature of consolidation and breakup of the South American Platform highlighting the tectonothermal and denudation processes. Benjamin Bley de Brito Neves emphasized the long and diachronous tectonic process of agglutination (1.5 up to 0.96 Ga) and fission (1.0–0.8–0.63 Ga) of the Rodinia supercontinent.

W. Randall Van Schmus discussed the Borborema province of NE Brazil which represents a collage of reassembled Transamazonian cratonic blocks (3.45 Ga) plus Mesoproterozoic to Neoproterozoic supracrustal blocks formed in basins on or between the cratonic blocks. Regional scale 520 Ma remagnetization of Neoproterozoic glacial-cap carbonate sequence (762 Ma) of Sao Francisco basin, Brazil, was reported by Ricardo I. F. Trindade. Occurrence of a global scale megashear zone in the Gondwana assembly passing through Kalahari, India, Somalia, etc., was discussed by C. V. Reeves, based on aeromagnetic analysis. Further, M. J. de Wit emphasized the links between northern Mozambique, India and Madagascar on the basis of geochronology and aeromagnetic study of the shear zones. T.K. Biswal stressed the contiguity of the Terrane Boundary Shear Zone of the Eastern Ghats Mobile Belt of India with the Napier-Rayner Complex boundary of Enderby Land (Antarctica) in East Gondwana based on the detailed strain analysis. M. Yoshida put forward a critical review on the new idea of the Pan-African assembly of East Gondwana that is supported mostly by zircon ages and palaeomagnetism. A. M. Reading discussed a new approach in studying the structure of the lithosphere by means of imaging the earth’s interior using seismic waves from earthquake recorded by high fidelity broadband stations, with an example from Australian lithosphere. The eastern
Australian record of Gondwana assembly and evolution during 550 Ma to 340 Ma was discussed by D.R. Gray. Kanao Masaki talked about the result of deep seismic probing of the Lutzow-Holm Complex (Antarctica) interpreting the structure and evolution of the East Antarctica shield. P.W. Dickerson discussed the Tien Shah intraplate mountain-building movement during Miocene time, in response to the ongoing collision of India with Eurasia.

Gondwana Margins

N. Mortimer, in his plenary lecture, discussed the geology of New Zealand in the context of contiguity with Australia and Antarctica in Gondwana. Chris J. Adams presented new Nd and Sr isotope database for New Zealand sediments explaining the nature of different provinces. H.J. Campbell discussed the Triassic rocks of New Zealand. R.J. Pankhurst talked about the complexity of the events that have shaped the subcontinent of Patagonia. C.W. Rapela discussed the Sierra de la Ventana Fold belt bearing the imprint of Cambrian continental rifting. William A. Thomas talked about the origin of carbonate olistoliths in the context of explaining the tectonic accretionary history of Argentina precordillera while Patricia Sruoga, Laura Kleiman and Z.R.V. Bruce talked about the igneous provinces of Argentina and Chile. Mark Fanning presented new data on the Mawson Continent with regard to the evolution of the Palaeozoic Pacific margin of the Gondwana, while R.A. Glen talked about the Lachlan sector. C. Rolf presented the result of the palaeomagnetic investigations of the Ross orogen and T.R. Ireland discussed the geochronological results from Marie Byrd Land. Helmut Wopfner talked about the existence of two fundamentally different tectono-sedimentary environments in the Cimmeria. Kari Bassett talked about the Bowers Terrane inheriting the signature of the Ross orogen and argued for a 511 Ma as the age of accretion. Alan Vaughan put forward the new age data from West Gondwana. John Bradshaw spoke about View Point assemblage of North Antarctic Peninsula. The Lemay Group of Alexander island was described as an exotic terrane by I.L. Mullarbased based on Hf isotope study. D.R. Gray talked about the Otago Schist belt and 40Ar/39Ar dating of deformation.

Gondwana Sequences: Stratigraphy, Colonization and Deformation

R.A. Armstrong presented the chronology and stratigraphy while P.W.K. Booth discussed the structural patterns related to faulting and thrusting. M.D. Kock correlated the PTB on marine and non-marine sections in South Africa while Maarten de Wit discussed multiple organic carbon isotope reversal across PTB. O. Catuneanu demonstrated interplay of flexural tectonics and dynamic loading, P.J. Hancox described the tectonostratigraphic development and R. Damiani talked about Temnospondyls, all from the Karoo basin. Papers on reptile fossils, fishes and fossil wood from South Africa were presented by P.J. Hancox, P.A. Bender and Marion Bamford respectively. The first report of Triassic vertebrates from Antarctica suggesting that they could live at high latitudes was presented by J.W. Collinson. N.W. Archbold discussed the CPB from Australia and Argentina. Jodie Howe, N.G. Powell and Michael K. Eagel spoke on Cretaceous fossil forest from Antarctica, New Zealand's ancient endemic texas and crinoid colonization of New Zealand respectively.

Gondwana Breakup and Dispersal

The plenary lecture on the dramatic end of the Gondwana supercontinent by Bryan Storey emphasized the existence of a 190 Ma mass extinction probably attributed to release of methane clathrates. The variation in the CFB at the rifted margin of the Gondwana was presented by D.A. Jerram. S. Vouri correlated gabbroic intrusions in western Dronning Maud Land (DML) to Gondwana breakup while Antti Kallio discussed the primary and secondary geochemical variation in Jurassic FB of DML. Phillip Jones reported the possible presence of a remnant triple junction in DML. Markus Geiger discussed the signature of Gondwana breakup from sedimentary sequences in the Morondava basin, Madagascar. Norbert W. Roland presented the results of the GANOVEX VIII Antarctic expedition and showed the evidence for continuation of spreading in Antarctica. P.T. Leat discussed the Karoo-Ferrar magmatism as marking the beginning of Gondwana breakup. D.H. Elliot spoke about Middle Jurassic Ferrar magmas in the Transantarctic Mountains, Antarctica. Morag A. Hunter emphasized the role of plume activity in the continental breakup. K. Vanessa Tappenden discussed slab detachment during rifting of New Zealand from Gondwanaland while M.G. Laird showed the transition from convergent to extension tectonics in New Zealand in Mid Cretaceous. R. Sutherland discussed the separation of New Zealand from Antarctica as the final event in the dispersal of Gondwana.

Gondwana Palaeoclimate

G. Ramstein provided a model to simulate the Gondwana climate with appropriate weighting to tectonics,
reorganization of ocean dynamics, role of CO$_2$, etc. Y. Donnadieu proposed an AGCM model to explain the icesheet dynamic in a snowball earth during Neoproterozoic period. H.A. Armstrong talked about Ordovician Gondwana glaciation based on the study of turbidites in Jordan. F. Fluteau talked about Permian glaciation using numerical climate simulation and paleomagnetic reconstruction. N. G. Powell talked about presence of glacial climate in New Zealand during Cretaceous. A. Tosolini interpreted Tertiary palaeoclimate of Antarctica from Palaeocene floras.

**Ancient Orogens and Modern Analogues**

J.B. Murphy discussed the association of arc magmatism in an extensional setting of Nova Scotia. D. Keppie compared the Peri-Gondwana terranes to modern equivalents. U. Linnemann discussed the Cadomian orogen of Europe as a Gondwana-derived terrane on the basis of U/Pb SHRIMP data. W.A. Thomas narrated the variation in stratigraphy and structural style along the Appalachian–Ouachita thrust belt. S.M. Reddy discussed the isotopic age determination of deformation in a transpressive setting with special reference from Italian Alps and Capricorn orogen of W. Australia. C. Quesada spoke about the geodynamic setting and geochemical signature of igneous rocks of the Ossa-Morena Zone of SW Iberia. J. Ray presented his talk on petrological characteristics of recently discovered lamprophyric intrusions in the lower Gondwana sequence of the Himalayas. The evolution of Verkhoyansk-Chukolka orogen was discussed by V.S. Oxman.

**Gondwana Animation, GIS and Others**

An animation of Gondwana breakup and assembly was displayed by C. Reeves. Rose Winterton and M. de Wit produced a GIS database for various continents. John Campbell gave one plenary lecture on ‘Ernest Rutherford – The Geologist from Gondwanaland’ highlighting the contribution of the Nobel laureate to the field of geochronology.

In addition to these, the Subcommision on Gondwana stratigraphy and IGCP 436 and 453 business meetings were held. Four mid-Conference field trips were conducted.