

BIBLIOGRAPHY OF BELIZEAN CAVING

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- Albert, D. & MacLeod, B. (1971). Caving In British Honduras. *NSS News* 29(1): 6-9. The authors followed up work done by W. Ford Young and Frank Norris. This article describes the exploration of caves at Caves Branch and at Rio Frio. Some useful introductory material on the country (including geology) but no surveys and no coherent cave descriptions.
- Alt, E.M. (1994). *Aspects of the Karst Geomorphology of the Northern Vaca Plateau, Cayo District, Belize*. 138pp. Thesis for PhD, University of Wisconsin-Milwaukee. "... examines aspects of the tropical karst on the northern Vaca Plateau... A GPS was used to collect data about the karst landscape... Residual hills, sinkholes, caves and dry valleys constitute the landscape. Relict features within the karst are located close to the main divide of the Northern Vaca Plateau... Seventy-eight caves have been examined in the study area and 51 of these are truncated vertical shafts... Twenty-four soil samples... were collected and analyzed..."
- Anonymous (1988). Belize Bank Sponsors Exploration of Limestone Cave System. *Belize Reporter* 21(9). Publication of press release on 1988 QMC Expedition in Belizean local paper.
- Anonymous (1988). Cave Expedition in Manatee/Mullins Rivers Areas. *Belize Times* 3574. Publication of press release on 1988 QMC Expedition in Belizean local paper.
- Anonymous (1987). British Graduates On Expedition to Belize. *Amandala* 938. Brief description of 1988 Queen Mary College Expedition reprinted from *Caribbean Times* 14 August 1987. Based on erroneous London Press Service information.
- Anonymous (1986). Tiger Cave Belize, Central America. *NSS News* 44(111): 402. Account of minor fall in Tiger Cave in American accident analysis journal.
- Anonymous (1985). Patty Mothes in Belize. *D.C. Speleograph* 41(6): 10-11. Extract from Mothes, 1985.
- Anonymous (Rushin, C.J.) (1974). 1973 Belizean Caving Summarized. *Inside Earth* 3(7): 34-43. Note from record of activities in Belize, including the connection of the Petroglyph Satebe entrance, exploration in Mountain Cow Cave, St. Herman's and Caver Branch River Cave, Tiger Bay cave Rio Grange Cave, Ben Lomond and Darby Pat, archaeological discoveries in Blancaneaux Cave and a Chultun at San Antonio (Vaca), visits to Rio Frio Cave, Dry Creek Cave, and Cueva de Che Maguerra.
- Arnold, J. (1988). International News. *NSS News* 46(9): 361. Brief note recording exploration by Miller in White Ridge as part of the 1988 QMC Expedition, and in the Bladen River gorge.
- Arnold, J. (1985). International News. *NSS News* 43(8): 260. Precis of Shaeffer (1985) included as part of round up of international caving news.
- Arnold, J. (1985). International News. *NSS News* 43(3): 135. Note about Belize Chamber comparing it with Carlsbad's Big Room.
- Austin, P. (1995). Have You Caved in Belize? *NSS News* 53(11): 307. Brief article by PhD student in Archaeology at McMaster, looking for information and assistance.
- Baker, T. (1990). *Queen Mary College Sumbathing Expedition to Belize 1988*. Unpublished report, 15pp. The "alternative" report of the 1988 QMC Expedition. Includes no cave related information whatsoever, but a great many "in" jokes.
- Bartholomew, R. (1973). Belize Caving. *Texas Caver* 18(9): 259-261. Article describing Bartholomew's trip to Caves Branch River cave, where he helped Rushin-Bell, MacLeod and McNatt with the survey of the cave.
- Bateson, J.H. & Hall, I.H.S. (1977). *The Geology of the Maya Mountains*. Institute of Geological Sciences Overseas Memoir 3, London. 43pp plus maps. Notable principally for an almost complete absence of any mention of caves, but does contain useful map of faults in the Maya range.
- Blak, R. (1990). Belize April 1989. *Journal of Subterreanean Metaphysics* 101: 4-10. Alberta Speleological Society. Contains essentially the same information as *Canadian Caver* 22(1), but is actually a different write-up.
- Blak, R.(1990). Belize Expedition 1989. *Canadian Caver* 22(1): 22-29. Account of the 1989 Anglo Canadian Expedition. Includes surveys of Tunichil Muknal, Box Ch'iich', Tan U Wüyül and Ya'ax Kan plus list of participants.
- Boon, M. (1971). Notes on Caves in British Honduras. *Canadian Caver* 4: 65. Boon investigated the Río Chiquibul sink and found it sumped after 200m.
- Bowden, J. (1988). Finally the St. Herman's-Petroglyph Connection. *National Association for Cave Diving News* 20(5): 53-54. Account of both Bowden's attempts to connect the two caves via the sump: the first, in 1987, failed but a successful attempt was mounted a year later.
- Bowden, J. (1988). News and Notes. *NSS News* 46(12): 464. Note of Jim Bowden's successful attempt to connect Petroglyph and St. Herman's via the sump.
- Burns, P. (1984). Oztotally Yours, Belize. *Journal of Subterreanean Metaphysics* 7: 4-6. Alberta Speleological Society. Description of Burns' involvement in one of the Chiquibul expeditions.
- Checkley, D. (1987). International News. *Caves and Caving* 36: 38. Reference to Miller's article in *Canadian Caver* 18(2).
- Checkley, D. (1985). International News. *Caves and Caving* 29: 16. 19 word reference to Belize inspired by articles in *NSS News*.
- Coke, J. (1989). Personal communication with Nick Williams. 1p. Letter describing diving activities on the Cayes. Includes mentions of Double Hole Cave (Caye Chapel), Rio Hondo Cave (Ambergris Caye) and Giant Cave (Caye Caulker).
- Coke, J. (1988). News from Mexico. *Underwater Speleology* 15(6): 4. Brief mention of further work in Giant Cave and also of Ambergris Caye.
- Coke, J. (1987). News from Belize. *Underwater Speleology* 14(5): 12-13. Describes further work in Giant Cave, including dimensions and depths and problems with the line. Mentions earlier explorations by Exley et al., and by an Italian (?) expedition. Also mentions Double Hole Cave of Caye Chapel.
- Coke, J. (1986). News from the Yucatan and Belize. *Underwater Speleology* 13(4): 9-10. Describes exploration in Giant Cave, Caye Caulker. Briefly also mentions a cave at Caye Chapel and the Blue Hole at Caves Branch.
- Coke, J. & de Groot, J. (1986) Personal communication with George Veni. 4pp. Letter describing diving activities under the Cayes. Includes sketch of Giant Cave.
- Cousteau, J.Y. & Diolé, P. (1973). *Galapagos, Titicaca, The Blue Holes*. Casell & Company Ltd, London. 304pp. including many photos. Cousteau took his research ship, Calypso, to the Caribbean in 1967 (?) and spent some time moored over the Blue Hole at Lighthouse Reef. His team explored it fairly thoroughly. Observations of the shaft were made by eye and by using a miniature submarine, and various specimens including a large detached stalagmite were recovered to the surface. Includes many color photos.
- Day, M. (1991). Personal communication with Nick Williams. 1p. Letter regarding the 1991 Quartz Ridge expedition. Notes that Charles Wright still lives in Punta Gorda, and that Day intended to look for caves around Spanish Water Hole in 1992.
- Day, M.J. (ed) (1987). Environment and Resources in the Hummingbird Karst. University of Wisconsin, Milwaukee, Department of Geography. *Occasional Paper* 2: 21-25. A brief description of the geology is followed by a discussion of landforms, describing the karst in the Cayo District. No specific mention of caves but a good general description of the area.
- Day, M. (1986). Karst and Land Use in Belize. *Proceedings 9th International Congress of Speleology*. Barcelona, August 1986. Describes the Caves Branch, Sibun and Dry Creek areas, concentrating on the use of the land. Includes references.

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- Day, M. (1986). Personal communication with Nick Williams. 4pp. Letter giving contacts and logistical advice. Includes suggestions of potential areas to explore.
- Day, M. (1985). Caving in Belize, Central America. *Wisconsin Caver* 5(10): 21-23. Account of visits to St. Herman's, Rio Frio, and Mountain Cow. Includes survey (2" x 3") of St. Herman's.
- Day, M. (1983). Slope Form and Process in Belize. *Proceedings Anglo-French Karst Symposium. September 1983*: 363-382. "...Detailed surveys of 25 slope profiles...reveal that the slopes are composed of essentially four identifiable units: staircases, broken cliffs, inclined bedrock and talus slopes. The occurrence of these units is associated with position on the slope...over a six year period ...weight loss tablets suffer increased weight loss with increasing downslope position..." Includes many references.
- Day, M., Gaertner, P. & Neal, M. (1987). A Dye Trace at the Blue Hole in Central Belize. *Wisconsin Speleologist* 20(2): 1-12. Day and his co-workers performed a dye trace test at the Blue Hole as part of a student instruction course. The article describes the method and value of the dye trace technique, the hydrology of the Caves Branch cave and the relationship between the different caves of the system. Includes maps of hydrology and geology along with extensive references.
- de la Haba, L. & Long, M. (1972). Belize, the Awakening Land. *National Geographic Magazine* 141(1): 124-146. Long visited caves in the Caves Branch area with W. Ford Young while travelling through Belize. The article is a traveller's description of the country and people in the early seventies.
- Dougherty, P.H. (1988). Geomorphological Evolution of the Rio Grande Karst of Belize. *Geo²* 15(1/3): 4-6. Reprint of the article in Proceedings International Congress of Speleology 1986.
- Dougherty, P.H. (1986). Speleogenesis of the Rio Grande Karst of Belize. *Proceedings 9th International Congress of Speleology*. Barcelona, August 1986: 179-181. Proc. 9th International Congress of Speleology, Barcelona, August 1986. Describes the geological and meteorological conditions in Toledo district which combine to create larger cave systems than elsewhere in the Yucatan. Geological map and references.
- Dougherty, P. (1986). Comment and Correction on November Belize Article. *NSS News* 44(3): 54. Reply by Dougherty to Miller's letter in *NSS News* 44(2). Notes errors in original article (*NSS News* 43(11)).
- Dougherty, P. (1985). Belize: The Rio Grande Project. *NSS News* 43(11): 329-334. Account of the 1984 and 1985 expeditions to Toledo District by Dougherty's team. Includes a description of the country and of some of the caves found. Lists participants in both trips. The trip surveyed Tiger Cave (Hich Tulz) and Bat Cave (Mucbe) on the Rio Grande. Photos and a geological map but no surveys or coherent cave descriptions.
- Exley, S. (1994). *Caverns Measureless to Man*. Cave Books, St. Louis, 325pp. Chapter one of Exley's posthumous autobiography gives details of exploration of Giant cave under Caye Caulker in 1982, including a survey. Exley claims that the original discoverers of the cave were Paul and Shannon Heinerth, but does not give a date of discovery. The survey is not consistent with subsequent publications by Coke, etc.
- Flavell, J. et al. (1994). *A Report on the Mendip Caving Group Expedition to Belize 1994*. Unpublished manuscript 21pp. Produced for the Belize Dept. of Archaeology. Account of a four-man trip to a small area at the northern tip of the Vaca Plateau. Discovered 20 caves, mostly short and fairly small but some with archaeologically significant remains. Report include grid references and surveys of Rocky (Crab) Cave, Unique Cave, Cool Spot Cave, Cocohil Cave, Actun Merech, Actun Mai, Actun Hoyanko, Cueva del Indio Perdido, plus descriptions.
- Fosshagen, A. & Illiffe, T.M. (1991). A New Genus of Calanoid Copepod from an Anchialine Cave in Belize. *Bulletin Plankton Society Japan* special volume: 339-346. Taxonomic article on new species of shrimp from Giant Cave, Caye Caulker, discovered by Illiffe and Sarbu in 1989.
- Francis, T. (1994). Expedition to San Antonio, Belize, 1994. *Grosvenor Caving Club Newsletter* 60: 5-7. Brief account of the 1994 MCG Expedition which explored 20 caves in the San Antonio area. Includes descriptions of Crab (Rocky) cave, Cool Spot Cave, Cocohill Cave, Actun Mai, Actun Hoyanko. No surveys or photos.
- Frew, D. (1991). *Belize 1991*. Unpublished Manuscript. The story of the second civilian team which took part in the 1991 British expedition to the Little Quartz Ridge. Not much cave information but concentrates on logistical problems at the end of the trip.
- Frew, D. (1989). Belize 1989. *Wessex Cave Club Journal* 20(222): 88-92. Account of the 1989 Anglo Canadian Expedition which concentrated on Barton and Roaring Creeks. Amongst the caves mapped was Tunichil Muknal, Yax Teel Ahau, Swift Cave and Camp Cave. Includes photos and list of members but no surveys.
- Frew, D. (1989). Belize 1989. *Wessex Cave Club Journal* 20(224): 139-142. Continuation of article in WCCJ 222 describing the exploration of Amazing Green Snake Cave, and Camp Cave. Includes list of translations of names from Mayan to English.
- Ganter, J. (1990). Chiquibul. *NSS News* 48(1): 6-14. Description of the 1986 Expedition—essentially the same as appeared in *DC Speleograph* 44 (7). Includes photos and half page survey of Chiquibul.
- Ganter, J. (1988). Chiquibul Expedition 1986. *DC Speleograph* 44(7): 5-16. Chronological account by a participant of the 1986 Chiquibul Expedition. A detailed account of the expedition, including the hike to the caves, the exploration of Actun Zactun, Cebada and Xibalba, evacuation of an injured caver by helicopter. Includes references, list of participants, location map and full page survey of Chiquibul system.
- Gertsch, W.J. (1973). A Report on Cave Spiders from Mexico and Central America. *Association for Mexican Cave Studies Bulletin* 5: 141-163. Taxonomic article on cave spiders includes records of examples found in Bucks Bypass Cave (Caves Branch and Rio Frio Cave).
- Glassman, P. (1984). *Belize Guide*. Passport Press, Moscow, Vermont. 106pp plus map. Neat little tourist guide to Belize mentions Ben Lomond and Manatee caves (pp70) and St. Herman's Cave (pp90).
- Graham, E. & McNatt, L. (1980). Excavations in Footprint Cave, Caves Branch, Belize. *Journal of Field Archaeology* 7(2): 153-172. Footprint Cave is located in the Caves Branch region. In 1979, the authors conducted an archaeological excavation at this site and this report contains detailed descriptions and discussions of the artifacts they found. The introductory pages include location information for Actun Polbilche, Tiger Bay Cave, St. Margaret's Cave, Uchentzub, Chanona Cave, Rio Frio Cave, Eduardo Quiroz Cave, Awe Cave, Actun Balam, Hokeb Ha Cave and Caves Branch Cave.
- Harsthorn, G. (1983). *Belize: Country Environmental Profile*. Robert Niocolait & Associates, Belize City, 148pp. Comprehensive summary of land and peoples, notable for useful geological and hydrological summary (pp 60-80).
- Hesketh, J. (ed) (1995). Mendip Caving Group Belize 94. *Mendip Caving Group Occasional Publication* 1. 34pp. Essentially describes the same caves as Flavell (1994), but includes further logistic information and description of the trip. Surveys of Rocky (Crab) Cave, Unique cave, Coolspot Cave, Cocohill Cave, Actun Merech, Valley of the Caves.
- Hollings, P. (1994). Belize Mendip Caving Group 1994 Expedition. *NSS News* 52(12): 350-354. Published account as per Flavell (1994). Surveys of Rocky (Crab) Cave, Cocohil Cave (surveys incl.). Photos.
- Hollings, P. (1994). Personal communication with Nick Williams. 25 April 1994. 2pp. Letter with brief description of MCG expedition's results, including Mai's Cave,
- Iliffe, T. (1989). Personal Communication with George Veni 6pp. Report to the Smithsonian Institution. Brief description of the work done by Iliffe and Serban Sarbu in the spring of 1989. They spent a period of seven weeks looking at the cave fauna in submerged caves on the Cayes and discovered various shrimps, etc. The main site of interest was Giant Cave (Caye Caulker) but dives were also undertaken at Caye Chapel and Columbus Caye, as well as the Caves Branch Blue Hole.
- Jackson, C. (1994). *Exercise Cuevas Humedas*. 25/170(IMJIM) BTY 19 Fd Regt Royal Artillery. 34pp. Jackson and his team diverted to explore caves around Blue Creek when their original target (Chorreadero in Chiapas) was rendered impossible by guerillas. Blow by blow account of an (eventually successful) attempt to connect the Rio Blanco to Blue Creek. Crude survey, lots of logistic details.

- Jackson, C. (1991). Personal communication with Nick Williams. 7pp. Letter describing Jackson's activities in the Toledo District while stationed with British Forces Belize. Includes description of Blue Creek with sketch, and of Rio Blanco Cave.
- Jacob, J.S. & Hallmark, C.T. (1996). Holocene Stratigraphy of Cobweb Swamp, a Maya Wetland in Northern Belize. *Geological Society of America Bulletin* 108(7): 883-889. "We investigated the soils and sediments of Cobweb Swamp.... The...depression probably formed as a karstic doline or polje in interbedded limestone and marl of late tertiary or Pleistocene age. After ca. 5600BP the Cobweb depression was affected by relatively rapidly rising sea levels in the area.....Massive deforestation...is the most likely explanation for a freshwater lagoon.....Peat began to fill the...lagoon some time before 500BP, probably the result of shallower water levels from decreasing runoff resulting from reforestation after abandonment by the Maya."
- Knutson, S. (1983). The Cave, Belize. *NSS News* 41(10II): 261. Brief write up in annual caving accident analysis journal about the near fatal flooding of a cave in Toledo district while being explored by McNatt and Miller.
- Lloret, J. & Ubach, M. (1993). Els Cenotes del Yucatan. *Endins* 19: 29-36. Federacio Balear d'Espeleologia, Mallorca. The authors visited Belize as part of a tour of the Yucatan Peninsula in 1989 and visited Caves Branch and Rio Frio. The paper describes the formation of a variety of types of cenote in the region. In Spanish.
- Luiszer, F. (1985). Caving in Belize. *Rocky Mountain Caving* 2(2): 12-13. Luiszer visited St. Herman's while on holiday in Belize. The article includes a location map for the cave.
- MacDonald, R.C. (1975). Observations on Hillslope Erosion in Tower Karst Topography of Belize. *Geological Society of America Bulletin* 86: 255-256. Describes the geomorphology of the development of limestone towers in Belize and proposes a mechanism.
- MacLeod, B. & Reents-Budet, D. (1995). Petroglyph Cave, Belize: An Ancient Ritual Site. *NSS Bulletin* 57(1): 58. Abstract of talk prepared for the 1994 NSS Convention (Brackettville, Texas) describing archaeological investigations at Petroglyph.
- Marochov, N. & Williams, N. (1992). Below Belize. QMC Speleological Expedition/Wessex Cave Club. 58pp. Report of the 1988 Queen Mary College and the 1989 British (Anglo-Canadian) expeditions, includes introduction to the country plus commentary on Caves Branch, Gracy Rock, White Ridge, Indian Creek, Barton Creek and Roaring Creek areas as well as Caves and the Maya and references. 8 pages of colour photographs plus (A3) surveys of Actun Zotziha and White Ridge/Darby Pat system. 20 monochrome photos. Other surveys include all caves mapped by the two expeditions (Mountain Cow, Carapace Cave, Cedar Bank Cave, Cracy Rock Hill Cave, Gibnut Cave, Gracy Point Rift Cave, Manatee River Cave, Number three and Number Four caves, Gothic Caverns, Five Blues River Cave, Holes In Six Chamber (Actun Tunichil Muknal), Actun Tan U Wüyül, Actun Boc Ch'ii'ch, Actun Ya'ax Kan, Sunken Forest Cave.)
- Marochov, N. & Williams, N. (1989). Queen Mary College Speleological Expedition to Belize 1988. *Caves and Caving* 43: 8-11. Concise description of the work done by the 1988 QMC Expedition with many maps and photo's. Describes work in White Ridge (Darby Pat/White Ridge systems (incl. half page survey), Mines of Moria, Barton Creek (Actun Zotziha, the Hole in Six), and at Gracy Rock (Gibnut Cave).
- Matola, S. (1991). *Columbia River Forest Reserve Expedition*. Unpublished manuscript, 50pp. Report of a biological expedition to the region south of the Little Quartz Ridge which explored a number of caves in the low hills northeast of San Jose. Concentrates on the archaeological artifacts in the caves rather than any surveys or cave descriptions.
- Matthews, R.C. (1991). Blue Hole: A Cavern Beneath the Sea. *Texas Caver* 36(5): 96-97,111. Account of a visit to the Blue Hole at Lighthouse Reef as part of a diving holiday. Includes notes on the local wildlife and a brief description of the formation of the Hole.
- McKenzie, I. (1991). Caves Branch. *Canadian Caver* 23(1):41. Brief description of the Caves Branch River cave float through.
- McNatt, L. (1993). Personal Communication with Nick Williams. 3pp. Letter describing McNatt's reasons for leaving Belize. Describes the development of tourist caving trips at Caves Branch.
- McNatt, L. (1991). Personal Communication with Nick Williams. 1pp. Letter regarding draft of Below Belize report. Includes information regarding dedication of Five Blues lake as a nature reserve.
- McNatt, L. (1986). Personal Communication with Nick Williams. 4pp. Letter following initial enquiry regarding 1988 QMC Expedition. Includes logistical information and mentions caves in Toledo (Blue Creek, Ochochpec and Rio Grande) and around Augustine (Rio Frio).
- McNatt, L. (1982). *Grim Fairy Tales; Tom, Logan and the Cave*. 10pp. McNatt, Austin, Texas. Spoof children's story about the near fatal flooding of a cave in the Toledo District during exploration by McNatt and Miller.
- McNatt, L. & Miller, T. (1986). Speleoarchaeological Investigations in Belize. *Proceedings 9th International Congress of Speleology*. Barcelona August 1986: 197-199. Describes the relationship between the ancient Maya and the caves, including notes on the use for ceremonial purposes, the artifacts and the methods of access. Includes references.
- Middleton, J. & Waltham, T. (1986). *The Underground Atlas*. Robert Hale, London. 239pp. (p43). Short summary of caves and caving in Belize. No references.
- Miller, T. (1995). Hokeb Ha, Belize. Exploration and Research with the Jason Foundation Expedition. *NSS Bulletin* 57(1): 68. Abstract of research undertaken by Miller during his involvement in the Jason Project which broadcast live television by satellite from Blue Creek Cave in 1994. In addition to providing educational material to school age children, Miller also managed to perform water analysis and flow measurements.
- Miller, T. (1994). Personal Communication with Nick Williams. 3pp. Letter describing Miller's involvement in the Jason Project, including an A4 map of Blue Creek cave. Also mentions further discoveries in Petroglyph.
- Miller, T.E. (1993). Personal Communication with Pete Hollings. 4pp. Letter regarding the 1994 MCG expedition's objectives. Includes useful summary map of work done to date in Belize.
- Miller, T. (1991). Cave Exploration in Belize: A Historical Overview the Chiquibul Exploration. *NSS Bulletin* 53(1): 30. Abstract of talk at 1988 NSS Convention: essentially contained same information as article in *Caves and Caving* 49.
- Miller, T. (1991). Cave Passage Development in Belize. *NSS Bulletin* 53(1): 19. Abstract of a talk at the 1988 NSS Convention. Interpretation of the speleogenesis of the caves systems in the Maya Mountains.
- Miller, T. (1991). It's Not Easy Being Green Howards. *Canadian Caver* 23(1): 19-30,41. Account of explorations in the Indian Creek area. Surveys of Vampyre, The Lost World, Shortcut Caves (Ian's Really Big Cave, Swamp Drain, 3rd Cliff Foot Cave) Green Howards Cave, Bellhole Cave, Maya Well, plus mentions Darknight (incl. new passage discovery) and Daylight. Photo of Vampyre entrance.
- Miller, T. (1991). Mayan Cave Exploration in Belize. *NSS Bulletin* 53(1): 32. Abstract of talk given at 1988 NSS Convention. An assessment of the caving activities of the ancient Maya.
- Miller, T. (1991). Soil and Rock Analysis from Cockpits: Implied Fluvial Development. *NSS Bulletin* 53(1): 19. Abstract of a talk at the 1988 NSS Congress. Soils in limestone areas are similar to non limestone areas.
- Miller, T. (1990). Caves and Caving in Belize, An Overview. *Caves and Caving* 49: 2-4. Chronology of modern exploration in Belize. Includes names of many American workers and includes list of long and deep systems, references, map and survey (5"x7") of Chiquibul.
- Miller, T. (1990). Tunichil Muknal. *NSS News* 48(2): 32-40, cover. Basically the same as the article in *Caves and Caving* 46 with additions. Includes double spread survey of Tunichil Muknal and half page survey of Yax Teel Ahau plus comments regarding the 1989 Anglo Canadian Expedition and details of the exploration of Box Ch'ii'ch' ("Chicken box").
- Miller, T. (1989). Belize from *Atlas of the Great Caves of the World* (Courbon, Chabert, Bosted & Lindsley [eds]). Cave Books, St. Louis, MO: 44-45. Brief description and chronology of exploration and caves. Includes lists of longest and deepest, plus survey of Chiquibul system. No references.
- Miller, T. (1989). Chiquibul 88. *NSS News* 47(3): 61-66. Virtually identical article to *DC Speleograph* 44(11). Half page map of Chiquibul system. Photos.

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- Miller, T. (1989). The Lost Passage of Petroglyph Cave. *Canadian Caver* 21(2): 47-48. A description of Petroglyph and an account of its exploration, including the re-discovery in 1988 of a large section of river passage "mislaidd" since 1977.
- Miller, T. (1989). Tunichil Muknal. *Caves and Caving* 46: 2-7. Description of the exploration of Actun Tunichil Muknal in 1986 by Miller and a team of mostly American cavers. Full page survey and photos.
- Miller, T. (1989). Tunichil Muknal. *Canadian Caver* 21(2): 3-8. Essentially the same article as appeared in *Caves and Caving* 46. Includes comments about the 1989 Anglo Canadian Expedition and two full page surveys.
- Miller, T. (1989). Chiquibul 1988. *CIG Newsletter XXXIII*(1): 3-7. Virtually identical article to *DC Speleograph* 44(11). Half page map of Chiquibul system.
- Miller, T. (1989). Letters: Belize Expedition-Let's Put the Record Straight. *Caves and Caving* 44: 12. Letter pointing out that the exploration done by QMC 1988 Expedition was often following discoveries by earlier American cavers. In particular, Hole in Six is same as Actun Tunichil Muknal.
- Miller, T. (1988). Belize. *DC Speleograph* 44(11): 5-10. Account of the 1988 expedition which attempted to connect Cebada with Tun Kul. The expedition was dogged by injury and equipment failure and failed in its objective. It did, however, find significant new passage, some of it spectacularly decorated.
- Miller, T. (1988). Surface and Cavern Development in Belize. *Geo* 2 15(1/3): 31. Very brief abstract of paper on karst development.
- Miller, T. (1987). News and Notes. *NSS News* 45(11): 372. Brief article in international news summary notes that Tom Miller and Linda Gough surveyed 4km of cave in the Indian Creek area [K'op Kimen Cab] and extended Actun Chek. An attempt to connect St. Herman's and Petroglyph via the sump was aborted due to regulator failure.
- Miller, T. (1986). Karst Hydrology and Geomorphology of Belize. *Proceedings 9th International Congress of Speleology*. Barcelona August 1986: 23-24. Divides the country into five sub-areas of karst and describes the surface features of these areas as well as the cavern development. Includes figures for carbonate solutions concentrations and references.
- Miller, T. (1986). Karst of the Caves Branch, Belize. *Proceedings 9th International Congress of Speleology*. Barcelona August 1986: 25-26. Diagrams of "idealized hydrology", hardness vs. rainfall and water hardness accompany a brief description of the processes of formation of the Caves Branch caves.
- Miller, T. (1986). the 1984 Chiquibul Expedition. *Proceedings 9th International Congress of Speleology*. Barcelona August 1986: 271-272. Brief description of the work of the 1984 Expedition, including 4" x 3" map of Belize chamber and 5" x 6" survey of Actun Tunkul and Actun Kabal.
- Miller, T. (1986). Belize Caving Clarified. *NSS News* 44(2): 32. Letter by Miller regarding Dougherty's article in *NSS News* 43(11). Notes that both caves explored by Dougherty had been previously explored and requirements for obtaining permission to cave in Belize.
- Miller, T. (1986). Chiquibul 1986. *Canadian Caver* 18(2): 38-40. Description of the exploration of Cebada Cave, including the resurgence in Guatemala. Includes full page map of 50+ km Chiquibul system.
- Miller, T. (1986). The 1986 Chiquibul Expedition. *NSS News* 44(8). Note of the achievements of the 1986 National Geographic funded expedition which mapped 27km of the Chiquibul system over the border into Guatemala. Includes list of participants.
- Miller, T. (1984). Chiquibul Expedition 1984. *Canadian Caver* 16(2): 40-43. Chronological account of the exploration of the 1984 National Geographic funded expedition. Discoveries included Chiquibul Chamber, Tapir-off Cave, various serially named small caves and link passages, Belize Chamber (in Actun Tun Kul), Ch'en Nohoch and other parts of the Chiquibul. The expedition was in two phases (April and May). Article includes lists of participants and drawing of Belize Chamber superimposed on Carlsbad's Big Room.
- Miller, T. (1984). Chiquibul Expedition Completes Field Work. *NSS News* 42(8): 271. Brief note on the 1984 National Geographic funded Expedition which discovered 23km of passage, including Belize and Chiquibul chambers.
- Miller, T. (1984). News from Belize. *Association for Mexican Cave Studies Newsletter* 14:44. Brief note on the 1984 National Geographic funded Expedition which discovered 23km of passage, including Belize and Chiquibul chambers.
- Miller, T. (1981). Houses of Stone-Caving in Belize. *Caving International Magazine* 11: 16-24. Essentially a write up on the December 1979 Expedition to Caves Branch and Toledo District similar to *Canadian Caver* 12(2), but includes more detail about Actun Lubul Ha including a survey (18"x5") as well as photos and surveys (4"x6") of Blue Creek Cave and Ochochpec.
- Miller, T. (1981). *Hydrochemistry, Hydrology and Morphology of the Caves Branch Karst, Belize*. 280pp. Thesis for PhD, McMaster University. Miller thoroughly investigated the Caves Branch area, and explored over 40km of passage. He makes observations on the hydrology, geology, morphology and formation of the caves, and includes surveys (at A4) of Candlestick Cave, Actun Chanonan, Mountain Cow Cave, parts of Caves Branch River Cave, Actun Lubul Ha, Actun Chek, Thunder Road, Ochochpec, Blue Creek Cave.
- Miller, T. (1980). Thunder Road. *Canadian Caver* 12(2): 6-8. Thunder Road is a 300m side conduit to the main Caves Branch River Cave. The article describes how Miller pushed it solo, free-diving several short sumps. Includes a survey (4"x 6").
- Miller, T. (1979). Darknight, Belize. *Canadian Caver* 11(2): 14-17. Description of a visit to Darknight Cave on Indian Creek. Includes survey and photo.
- Miller, T.E. (1977). Karst of the Caves Branch, Belize. *Proceedings 9th International Congress of Speleology*. Sheffield, September 1977: 314. Describes the topography of the Caves Branch area, and notes a relationship between flow rates and carbonate solution concentration.
- Miller, T. (no date). *The Karst Development and Associated Archaeology of the Chiquibul, Belize*. Unpublished report 40pp. At the end of two months field study, 23km of underground passage had been explored, along with the discovery of a large number of significant artifacts. Geological and hydrological investigations were also undertaken. Report includes details of itinerary, discoveries, finances.
- Miller, T. et al. (1980). Un-BELIZE-able Caving. *Canadian Caver* 12(1): 40-56. A group of seven cavers, mostly from McMaster University, visited Belize in late 1979. Exploration included Petroglyph, Actun Lubul Ha, a visit to Cay Caulker (mentions underwater caverns) and a day spent prospecting unsuccessfully. The team spent a considerable time in the Toledo district where work included extensive exploration of Blue Creek and Ochochpec. Article includes photos and 4"x6" surveys of Blue Creek and Ochochpec.
- Mothes, P. (1985). Caving in the Chiquibul. *Texas Caver* 30(2): 40-41, cover. Description of Mothes' participation in the 1984 National Geographic funded Expedition, includes notes on the methods and logistics of exploration and the discovery of a new species of blind freshwater crab. Concentrates on the exploration of Actun Tun Kul.
- Muchmore, W.B. (1973). New and Little Known Pseudoscorpions, Mainly from Caves in Mexico. *Association Mexican Cave Studies Bulletin* 5: 47-59. Taxonomic article on a new species of pseudoscorpion (*Vachonium belizense*) found in Mountain Cow.
- Muchmore, W.B. (1973). The Pseudoscorpion Genus *Mexobisium* in Middle America. *Association Mexican Cave Studies Bulletin* 5: 63-71. Taxonomic article on a new species of pseudoscorpion (*Mexobisium goodnighti*) found in cave near Augustine.
- Munro, D.M. & Gray, D. (eds) (1991). Aspects of Urban and Rural Development in Belize. Edinburgh Department of Geography. *Occasional Publication* 13: 59-60. Report of the 1988 Edinburgh expedition which includes an assessment of the potential for tourism development in the Cayo District—mentions St. Herman's Cave/ Blue Hole as well as Rio Frio.

- Musgrave, R. (ed) (1993). Blue Creek Cave. *The Belize Expedition Curriculum, Jason Foundation for Education*: 57-60,149-154, 179. The Jason Project's 1994 session included live-by-satellite broadcasts from Blue Creek Cave with Tom Miller presiding. This is the educational source material for teachers, which only includes information of a very general "this is how caves are formed" nature, but does include a survey of the cave.
- Neal, M.K. (1990). *Tufa Dams in the Humid Tropics; A Case Study on Little Baron Creek, Cayo District, Belize*. 141pp. Thesis for PhD, University of Wisconsin-Milwaukee. "... Tufa is widespread in humid tropical karst, but it has not been studied in detail. 29 tufa dams have formed along a 1.4km section of Little Barton Creek. This study has focussed on the morphology of the dams... Human activity has influenced dam development."
- Peck, S.B. (1973). A Review of the Cavernicolous Cetopinae (coleoptera; leiodidae) of Mexico, Belize. *Association Mexican Cave Studies Bulletin* 5: 97-106. Review of taxonomy of troglobitic beetles found in Belize.
- Pendergast, D.M. (1974). *Excavations at Actun Polbilche, Belize*. Royal Ontario Museum of Art and Archaeology Monograph 1. 103 pp. Detailed description of the location, excavation and artifacts found in the cave which is located south of Churchyard in Cayo District. Includes maps, drawings and photographs of caves and artifacts.
- Pendergast, D.M. (1971). *Excavations at Eduardo Quiroz Cave, British Honduras (Belize)*. Royal Ontario Museum of Art and Archaeology Occasional paper 21. 123pp Account of the excavation of Eduardo Quiroz Cave (Central Vaca Plateau) which contained artifacts, human and animal remains. Includes maps, drawings and photographs of caves and remains.
- Pendergast, D.M. (1970). *A.H. Anderson's Excavations at Rio Frio Cave E., British Honduras (Belize)*. Royal Ontario Museum of Art and Archaeology Occasional paper 20. 59pp. Posthumous publication of work done by former Archaeological Commissioner in Belize at Rio Frio Caves (Northern Vaca Plateau). Includes location map, diagrams and photographs of cave and artifacts.
- Pendergast, D.M. (1969). *The Prehistory of Actun Balam, British Honduras*. Royal Ontario Museum of Art and Archaeology Occasional paper 16: 70. Description of an archaeological investigation in a cave in the Chiquibul area (13km southeast of Caracol). Description and drawings of cave and artifacts discovered (including polychrome vase.)
- Ralph, R. (1985). Outings Report, Caves Branch River, Belize C.A. *Texas River Recreation Association Newsletter*: 3-5. Description of a canoe trip through the Caves Branch River Cave.
- Reddell, J.R. (1981). *A Review of the Cavernicole Fauna of Mexico, Guatemala and Belize*. Bulletin of the Texas Memorial Museum. University of Texas at Austin. 327pp. Reddell attempts "to provide a broad overview of the cavernicole fauna ...and to provide the specialist with a checklist and bibliography as complete as possible of the cave adapted ...species from these three countries." He summarizes a history of faunal study for each country and describe briefly the geomorphology of the areas under study. A comprehensive and systematic study.
- Reddell, J. (no date). A Checklist of the Cave Fauna of the Caves Branch, Cayo, Belize. Unpublished manuscript 8pp. An inventory of the fauna of the Caves Branch caves, listing mostly insects etc.
- Reeder, P. (1993). *Speleological and Geoarchaeological Investigations of the Northern Vaca Plateau*. Unpublished manuscript, 35pp. Further investigations of small caves in the northern Vaca Plateau area. The report includes much interpretation to place the exploration within its archaeological context. Surveys and descriptions of Pit Cave, Pots Cave, Outcrop Cave, Hilltop Cave, Pottery Hill Cave, Vadose Crawl Cave, Bushman Cave, Homesite Cave, Loose Ledge Cave, Reflection Cave, Big Mouth Cave, Junior's Pit Cave plus mention of Natural Bridge Cave and Macal Chasm. Photos. No grid references.
- Reeder, P. (1993). Cave Exploration and Mapping on the Northern Vaca Plateau. *NSS News* 51(11): 296-300. Useful description of work undertaken on expeditions in 1990 - 1993. Caves in the study area are unusually (for Belize) deep and many contain serious pitches (30m+). Also many artifacts. Article includes descriptions of 15 caves, with surveys of Junior's Pit Cave, Reflection Cave and Pottery Hill Cave, plus 6 monochrome photos.
- Reeder, P. (1992). *Speleological and Geomorphological Investigations in the Northern Vaca Plateau*. Unpublished manuscript, 28pp. Report on the 1990 and 1991 Expeditions which discovered about 60 small caves on the Vaca Plateau in the area around Spanish Waterhole and Caracol. Investigations were thorough and systematic, and recorded with care. Report includes a day-by-day account of the 1990 expedition with geomorphological interpretation where appropriate, a brief summary of the 1991 trip plus proposals for work in 1992. Surveys of Pit Cave, Pots Cave, Outcrop Cave. Photos No grid references.
- Reeder, P. (1991). The 1990 and 1991 Speleological Expeditions to the Northern Vaca Plateau, Belize. *NSS Bulletin* 53(2):122. Abstract of a talk at the 1991 NSS Convention. Describes reconnaissance expeditions to Spanish Waterhole area which have discovered about 50 caves.
- Roberts, C. (1990). Observations of Maya Cave Archaeology in Belize. *Cave Science* 17(3): 123-129. "The paper describes the archaeological observations of Mayan cave use recorded on the British Speleological Expedition to Belize, Central America in 1989. A background to the study of Belizean archaeology is given with comments on the problems of looting from archaeological sites including caves. A description of the caves by the Maya used is given and the evidence, particularly, of burial. The archaeological remains identified were predominantly pottery and human remains with occasional more specialised artifacts. The report itself concentrates on the human remains study and concludes with comments on the integration of specialist studies with the major aims of speleological expeditions." Includes photos of artifacts.
- Rowland, J.M. & Reddell, J.R. A Review of the Cavernicole Schizomide (Arachnida) of Mexico, Guatemala and Belize. *Association Mexican Cave Studies Bulletin* 6: 79-102. Article describing the distribution of a number of species of troglobitic spider includes records from St. Herman's Cave.
- Rushin-Bell, C. (1991). Women in Caving. *NSS News* 49(1): 33. Article from the 50th anniversary issue of the *NSS News* celebrating the involvement of women in caving in Belize. Concentrates on the activities of Carol Jo Rushin-Bell and Barbara MacLeod.
- Rushin-Bell, C. (1982). The Living Caves of the Dead. *Caving International Magazine* 14: 12-18. Description of Rushin-Bell's work in Belize with Barbara MacLeod. Concentrates on the archaeological aspects of the caves, in particular the artifacts and the prevention of looting. Also mentions a few wildlife problems! Photos but no surveys.
- Sarbu, S. (1990). Personal Communication with Malcolm Foyle. 6pp. Notes about the diving done by Sarbu in while in Belize with Tom Ilffe. Includes diagrams of Giant Cave, Caye Chapel Cave and Columbus Caye Blue Hole.
- Shaeffer, B. (1985). Belize Adventure. *Cave Cricket Gazette* 10(3): 32-34. Day by day account off Shaeffer's involvement in Dougherty's expedition to the Rio Grande in 1985. Includes an account of the exploration of Tiger Cave.
- Shaeffer, B. & Cobb, A. (1991). The NSS Maya Caves Project, Belize CA. *NSS Bulletin* 53(1): 30. Abstract of presentation at 1988 NSS Convention. Project to catalogue caves in the Toledo district. Exploration at Blue Creek, Deep River, Rio Grande and Edwards Central.
- Shear, W.A. (1973). Jarmilka Alba N. Gen. N. Sp (Diplopoda; Spirostreptida; Cambalidae). *Association Mexican Cave Studies Bulletin* 5: 43-45. Taxonomic article on new invertebrate species.
- Sims, J. (1988). *Caving*. Unpublished report, 9pp. Guide to some popular tourist trips in in the Caves Branch area for British Forces personnel. Mentions Caves Branch River Cave, St. Herman's Mountain Cow, and Petroglyph, with location information.
- Sims, M. (1992). Below Belize. *Descent* 107: 32-33. Account of the 1991 Expedition to the Little Quartz Ridge. Describes the logistical details and some exploration. Photos and survey of Actun Xibalda.
- Smith, R. (1992). Caving in Belize. Unpublished report for British Forces Belize 9pp. Basic guidelines for Forces cavers. Includes location information for Mountain Cow, St. Herman's, Petroglyph, and Caves Branch River Cave. No maps or surveys.
- Stone, A. (1995). Regional Variation in Maya Cave Art. *NSS Bulletin* 57(1): 59. Abstract of talk given at the 1994 NSS Convention (Brackettville, Texas) describing Mayan cave art.

BIBLIOGRAPHY OF BELIZEAN CAVING

- Stone, A.J. (1995). *Images from the Underworld*. University of Texas Press. 284pp. Superbly detailed study of Maya cave paintings concentrates mainly on Naj Tunich in Guatemala, but also mentions several Belize caves. Many plates and diagrams, including color.
- Stratford, T. (1992). Below Belize (Review). *International Caver* 5: 39. Review of *Below Belize* (report of the 1988 QMC Expedition and the 1989 Anglo Canadian Expedition).
- Surveys (A4) of K' Aizalah Obox, Boulder Cave, Bat Cave, Location map (A3) plus surveys of 10 minor caves discovered on 1991 Little Quartz Ridge Expedition. Published in reduced form in the expedition report.
- Survey of Cave in Vaca Area from 1991 Little Quartz Ridge Expedition.
- Surveys of Actun Zotziha and White Ridge/Darby Pat system (A2) plus 13 minor caves. Published in reduced format in *Below Belize* (1992).
- Sweeting, M. (1968). Karstic Morphology of the Yucatan. *University Edinburgh Expedition to British Honduras-Yucatan 1966*. Furley P.A. (ed): 37-40. Discussion of the hydrology, geology and morphology of the limestones of the Yucatan, heavily biased to Belize. Sweeting undertook water hardness measurements and makes observations about cave and speleothem formation.
- Szukalski, B. (1985). Bernie Szukalski in Belize. *DC Speleograph* June 1985: 8-9. Chronological account of Szukalski's involvement in Dougherty's 1985 expedition to the Rio Grande. Includes description of the exploration of Tiger Cave and Bat Cave.
- Szukalski, B. (1985). The Exploration of Tiger Cave, Belize. *NSS Bulletin* 47: 63. Abstract describing lecture by Szukalski and Dougherty at NSS Convention
- Tremaine, J. (1992). *Exercise Quartz Triangle*. Combined Services Caving Association. 18pp. Report of the military involvement in the 1991 Little Quartz Ridge Expedition. A personal account of "tourist" caving in Caves Branch area plus exploration of the Ridge. Includes 6 color photographs and two maps. No surveys or references.
- Truebe, H. (1986). A Caver's Introduction to Belize. *NSS News* 44(7): 274-275. A general introduction to the country which includes no information about specific caves or caving areas.
- Truebe, H. (1985). RMC Letters. Permission Needed for Belize Caves. *Rocky Mountain Caving* 2(3): 7. Letter in response to Luizer's article in *Rocky Mountain Caving* 2(3) pointing out that permission must be sought from the DOA before going caving in Belize.
- Turner, R.T. (1991). Caves of the Rio Grande Basin, Belize, Central America. *NSS Bulletin* 53(1): 63. Abstract of a talk at 1990 NSS Convention. Notes exploration of 35,000 feet of cave in Rio Grande since 1984, including Tiger Cave and the recently discovered Jaguarundi Cave.
- Unpublished Survey (approx 36x12 inches) held in Department of Archaeology Library, Belmopan.
- Unpublished Survey (A3) held in Department of Archaeology Library, Belmopan.
- Unpublished Survey (presumably by Tom Miller) held in Department of Archaeology Library, Belmopan.
- Unpublished Survey (on 5 approx. A3 sheets) held in Department of Archaeology Library, Belmopan.
- Veni, G. (1988). Personal Communication with Nick Williams, 29 July 1988 1pp. Letter describing the success (or lack of it) of the 1988 Chiquibul expedition.
- Veni, G. (1986). Concerning Cae Caulker Deaths. *Underwater Speleology* 13(5): 5-6. Letter describing the circumstances of the deaths of two open water divers in Giant Cave, Caye Caulker, in 1986 gives the dimensions of the cave as 670m x 550m.
- Walters, G.R. (1991). Maya Caves Archaeological Project: 1988. *NSS Bulletin* 53(1): 32. Abstract of talk at 1988 NSS Convention. The project is mapping caves in southern Belize and making an assessment of their archaeological significance. The use of caves by the ancient Maya is also studied.
- Walters, G.R. (no date). Maya Ceremonial Caves. *Der Fledermaus* 18(5): 2. Brief notes about the use of Belizean caves by Maya Indians. Includes map and photo of glyphs.
- Weintraub, B. (1984). Team Shed Light on Giant Cave. *South Wales Echo*. Press release from the National Geographic Society describing the discovery of Belize Chamber (Actun Tun Kul). Photo.
- Weston, S. & Maloney, A. (1994). Belize 1992. YSS 3. *Journal of the Yorkshire Subterranean Society*: 63-65. Weston and Maloney visited Caves Branch while on holiday in 1992. Caves entered were Caves Branch River Cave, St. Herman's, Mountain Cow and Petroglyph.
- Whitwell, O. (1988). International Exploits-Belize, May 1988. *BC Caver* 2(3): 7-10. Brief account of the 1988 Chiquibul expedition.
- Williams, N. (1994). *Bibliography of Belizean Caving 2nd Edition*. Wessex Cave Club. 20pp. Earlier version of this bibliography. Includes 28 trivial references to QMC 1988 expedition which have been deleted from this version to save space.
- Williams, N. (1993). Personal Communication with Chris Jackson. 8pp. Listing of grid references for approx. 100 caves, ordered by 1:50,000 sheet number. Also descriptions of how to get to tourist caves in Caves Branch and list of some sites for further investigation.
- Williams, N. (1992). Belize; An Introduction to the Land and Caves. *International Caver* 5: 4-11. Essentially the same as the first chapter of the Below Belize report of the 1988 QMC and 1989 Anglo-Canadian expeditions, but with a revised final section which gives a brief resume of the explored caves of each major caving area. A reasonably detailed account of the country and its caves. Includes maps, photos, references, list of longest and deepest caves and a survey of Actun Box Ch'iich.
- Williams, N. (1992). Below Belize 91. *Cave Science* 19(2): 33-39. "A combined team of British civilian and military cavers visited southern Belize in March and April of 1991 to look for caves around the western end of Little Quartz Ridge. The amount of cave passage discovered was disappointingly small since the many sinks in the area are shallow and show signs of regular flooding. Many are blocked with mud and debris. Even in the three places where sizeable streams leave the impermeable rock of the Ridge itself, the sinks proved to be largely inaccessible." Includes location map, surveys of Xibalda, Bat Cave and Actun K' aizalah Obox plus photos.
- Williams, N. (1992). *Below Belize 1991*. Below Belize 1991 Expedition/WCC. 17pp. Report of the 1991 Expedition to the Quartz Ridge. Includes discussion of geology, topography, flora and fauna. The expedition explored the sinks on the western end of the ridge and discovered many small caves but no extensive systems were found. Report includes 10 photos, 3 location maps, 14 A4 surveys, A3 survey of Actun Xibalda.
- Williams, N. (1989). Letters; Queen Mary College Speleological Expedition 1988. *Caves and Caving* 45:31. Response to Miller's letter in *Caves and Caving* 44.
- Williams, N. (1988). Expedition Explores Maya Mountain Caves. *Amandala* 962. Publication of press release on 1988 QMC Expedition in Belizean local paper.
- Williams, N. (1987). Caving in Belize. *Caves and Caving* 37: 7. A one page introduction to Belize for cavers. Includes small photos of St Herman's and the Blue Hole at Caves Branch but no cave specific information.
- Williams, N. (1987). *Queen Mary College Speleological Expedition to Belize*. Unpublished report & 56 color plates 9pp. First time traveller's guide to Belize.
- Williams, N. & Clark, T. (1990). *Queen Mary College Below Belize 1988*. N.N. Williams/QMC Expeditions Committee. 213pp. Very detailed report on the logistics of the organization of the 1988 Queen Mary College Expedition. Includes chapters on finance and fundraising, shipping, transport, food, equipment photography and projects to study bats and fish. Appendices include the original survey data from the expedition and references. 19 photographs but no surveys.
- Williams, P. (1976). Flagellate Infections in Cave Dwelling Sand Flies (Diptera, psychodidae) in Belize. *Bulletin of Entomological Research* 65: 615-629. The author studied infections in sandflies in Millionario Cave and Augustine Caves. He suggests a possible mechanism for transmission of the infection.
- Williams, P. (1976). The Form of *Lutzomyia Beltrani* (Vargas & Dias Najera)(Diptera, Psychodidae). *Bulletin of Entomological Research* 65: 595-599. Taxonomic article on a species of sand fly found in caves at Augustine and San Antonio.

- Williams, P. (1976). The Plebotomine Sandflies (Kiptera, Psychodidae) of Caves in Belize, Central America. *Bulletin of Entomological Research* 65: 601-614. The author studied sandflies in Millionario Cave, Augustine Caves and at San Antonio. (Sandflies are significant because of their ability to carry Leishmaniasis among other diseases.)
- Winsler, S. & Winsler, N. (eds) (1988). Queen Mary College Speleological Expedition to Belize 1988. *Royal Geographic Society Expedition Yearbook, 1988*: 12,95-96. Summary of the work done by the 1988 QMC Expedition, area by area. Includes brief descriptions of White Ridge, Gibnut, Five Blues River Cave, No. 3 & 4, Gothic Caverns, Actun Zotziha & Hole in Six. Includes list of expedition members, map and references but no surveys.
- Woods, R.L. Reid, S.T. & Reid, A.L. (1988). The Blue Hole at Lighthouse Reef. *The Field Guide to Ambergris Cae, Belize CA*: 132-137. Description of the flooded cenote at Lighthouse Reef. Principally a guide for sports divers but includes an elevation with notes on speleogenesis, notes on the submarine wildlife of the Caye and a history of exploration.
- Worthington, S. (1986). Belize. *Atlas Des Grandes Cavites Du Monde*. Courbon & Chabert (eds) UIS/FFS: 28-29. Short summary of caves and caving in Belize. Includes list of significant caves, plus some references. In French.
- Wright, A.C.S., Romney, D.H. & Arbuckle, R.H. (1959). *Land in British Honduras, Report of the Land Use Survey Team*. Colonial Research Publication (24) HMSO. 327pp & maps. The definitive work on the soils and landform of Belize. The country is divided into 24 sub-areas and the landform, soils, vegetation and agriculture of each is described and discussed. Suggestions for land use are proposed. The text also includes a discussion of geology, geomorphology and anthropology. Caves are only mentioned in passing but are mentioned under the appropriate sub area headings. Appendices and maps include a list of flora, soils, population, rainfall and ancient Mayan sites.
- Yonge, C. (1988). Discovery: Exploring the Caves of the Maya. *Explore Magazine* 34: 44-50. Calgary, Alberta. "Adventure" magazine article about the Chiquibul explorations by a participant in the 1986 trip. Includes account of exploration in Actun Tun Kul and Cebada. Photographs of caves, crab and artifacts (in color).
- Young, W.F. (1961). Spelunking in British Honduras. *International Speleologist* 1(1): 5-13. A description of the caves of Belize by the earliest explorer of modern times. Ford Young, in association with Frank Norris, visited "Ben Lomond...just west of the Southern end of Northern Lagoon" and Manatee Caves. They also visited caves in the Indian Creek area at Caves Branch and in the Chiquibul as well as well known archaeological sites in the company of the then Archaeological commissioner, A.H. Anderson. A map of major sites is included.
- 1:50,000 Survey of Belize in 41 sheets. Mostly prepared from aerial photographs in uninhabited areas. Contour intervals vary from sheet to sheet. Many errors in watercourse mapping in karst areas. Sheets show several caves, some named, some not. In particular Sheet 21 (Gracy Rock), Sheet 23 (Vaca), Sheet 24 (Barton and Roaring Creek), Sheet 25 (Caves Branch, Indian Creek), Sheet 26 (White Ridge), Sheet 28 (Rio Frio), Sheet 33 (Chiquibul), Sheet 34 (Eduardo Quiroz), Sheet 37 (Little Quartz Ridge), Sheet 41 (Blue Creek).
- A0 Surveys of Caves Discovered on 1991 Little Quartz Ridge Expedition. Published in reduced form in the expedition report.
- A0 Survey of Cebada Cave Resulting from 1986 and 1988 Expeditions.
- A1 Surveys of Box Ch'iich', Tunichil Muknal, Sunken Forest plus (A2) Tan U Wüyül and Ya'ax Kan. Published in reduced format in *Below Belize* (1992).

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