

Preface

Mine pit lakes and their unique features are largely neglected in the limnology literature. The standard textbooks on limnology (Margalef 1983; Schwoerbel and Bren-delberger 2010; Wetzel 2001) used in English, Spanish, and German speaking countries do not mention these types of lakes at all. Discussions on acidification of lakes and rivers were, and are, usually restricted to rain-acidified soft waters (O'Sullivan and Reynolds 2003, 2005; Stumm and Morgan 1996). Given the political and economic changes that have occurred in eastern and central Europe since 1990, limnologists have to recognize that a large number of new pit lakes now exist, constituting about 30 % of the total number of lakes in Germany.

During a symposium in Magdeburg in 1995, the current state of knowledge on mine water and post-mining lakes was discussed by 60 participants from the UK, Canada, USA, and Germany. The results were published in a book on Acidic Mining Lakes (Geller et al. 1998). After a decade of continuing scientific research and increasing practical experience, some of the authors of the first book met again in 2008 during the International Mine Water Association (IMWA) congress in Karlovy Vary, Czech Republic and agreed to prepare a second book on Acidic Pit Lakes. Altogether, 43 authors and co-authors contributed. The first part of this book presents the state of knowledge on the origin, geochemistry, and limnology of acidic pit lakes and various remediation approaches. The second part contains nine regional surveys and case studies on single lakes. The book is complementary to two other books which appeared recently, Castendyk and Eary (2009), and McCullough (2011).

We initially planned to publish this book in 2010, but learned that the rigorous peer-review and graphic editing process we imposed on ourselves required more time than we expected. Then, given the passage of time, several chapters, and sections had to be amended or rewritten.

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Acidic Pit Lakes

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