Green Publishing in Germany: A Passing Trend or a True Transition?

Corinna Norrick-Rühl · Anke Vogel



© Springer Science+Business Media New York 2013

Abstract Greening the German book industry is a large-scale task. This article, based in part on the results of a one-day conference titled "Bio im Bücherregal?" (Engl. translation: "Eco-friendly products on the bookshelf?") that was held in Mainz in January 2013, considers different perspectives on green publishing in Germany and presents the status quo as well as an outlook. After a brief historical and theoretical overview on the media and the environmental movement, the article presents current developments such as the initiative "Nachhaltig Publizieren" ("Green Publishing"). Initiated in 2011 by the publisher Oekom, the project has become a catalyst for the green publishing movement in Germany. In addition, this contribution introduces publishers and imprints, in particular of children's books, that strive to fulfill the highest possible criteria for green publishing in certain project areas. Finally, the close connection between green publishing and green content is discussed.

Keywords Acid free · Eco-friendly · E-readers · Germany · Greenomics · Green publishing · PROSA · Recycled · Shrink wrap · Sustainability

Introduction

"Bio im Bücherregal?": Perspectives on "Green Publishing" in Germany

It is common knowledge that publishing industries worldwide are major polluters due to their use of paper, energy, and ink. This contribution, based in part on the

C. Norrick-Rühl (□) · A. Vogel Institute for Book Studies, Johannes Gutenberg-University Mainz, 55099 Mainz, Germany e-mail: norrick@uni-mainz.de

A. Vogel e-mail: anke.vogel@uni-mainz.de

Published online: 24 July 2013



results of a one-day conference titled "Bio im Bücherregal?" which was held in Mainz in January 2013 (cf. [44] for a complete German-language report on the conference), will discuss whether the traditional German eco-friendly mindset applies to the book industry as well, presenting some dimensions of the "green publishing" debate in Germany. After some definitions and a brief historical and theoretical overview on the media and the environmental movement, the article will discuss current developments and initiatives such as "Nachhaltig Publizieren" in Germany, looking in particular at the trends in the children's book sector, before offering some conclusions and an outlook.

Definitions

"Green publishing" has become a fashionable term in Germany but the definition remains unclear. German book trade magazines like the *Börsenblatt* use the term widely and support initiatives through publication of press notices, interviews, etc.; "Green Publishing? Ja. bitte" was the affirmative subtitle of an article in a 2012 issue of the *Börsenblatt* [11]. Nevertheless, the *Börsenblatt* did not explain their definition of the term. For the purposes of our conference in January 2013 and for this article, Gerald Jackson and Marie Lenstrup's definition of "green publishing" from their book *Getting Published* is the most adequate: "Environmentally friendly/ sustainable publishing. Conventional publishing is anything but 'green'—paper production is particularly toxic, and the ethical fig leaves represented by the use of recycled and/or acid-free paper and vegetable dyes do not address the issue of the fuel-inefficient global transport of printed books. Electronic publishing is touted as a green alternative, but the Internet is hardly carbon—neutral either: server farms consume enormous amounts of energy, for instance" [34].

Jackson and Lenstrup's definition is helpful because it is a very comprehensive definition. Therein, they go beyond what is often understood as "green publishing," namely changing and re-thinking the production and in particular printing process. In addition, they mention the transportation and infrastructure problems as well as the discussion on e-reading and its ecological footprint.

Another term which is central to the discussion on "green publishing" is "greenomics". The term is a neologism and a blend of the words "green" and "economics". As delineated by Eike Wenzel, Anja Kirig, and Christian Rauch in their 2008 book *Greenomics*, the term stands for the certainty (and historical inevitability) that industries will have to become greener in order to survive [57]. In addition, however, the greenomics approach assumes that by combining principles of consumerism, pleasure, health, and sustainability, in the long term, companies can make larger profits than without greening their products. Wenzel et al. argue that companies are still wary of green solutions because they think these will be more expensive than the traditional way of doing things. However, as Iris Pufé

³ Engl. translation: "Green Publishing? Yes, please".



¹ Engl. translation: "Eco-friendly products in the bookshelf?".

² Engl. translation: "Green Publishing".

points out in her book *Nachhaltigkeit.*⁴ greener solutions often mean saving resources like water, energy and materials—and that, in turn, means saving money [47]. Another proof of the relevance of "greenomics" is that PriceWaterhouse Coopers (PWC) was able to show within the framework of the project "Vision 2050" (in cooperation with the International Energy Agency, OECD and the World Bank) that business opportunities relating to sustainability will increase rapidly by 2050 [56].

For the sake of this article, "green content" is also of central interest. This contribution will briefly delineate the role that the book has played and still plays in sustainability communication. The term "green content" can apply to all genres, which makes it more versatile than, for example, the term "CliFi" (climate change fiction) which has recently been used in the Anglo-American context to denote thrillers set in a dystopian present dealing with climate change [cf. 16]. Moreover, it will become clear that "green content" and "green publishing" are interdependent.

The Function of Media for Sustainability Communication

Media in general and books in particular have been closely connected to an increased awareness of environmental topics, as the well-known example of Rachel Carson's *Sitem Spring* illustrates, which was published in the 1960s and triggered an unprecedented environmental discussion in the USA as well as in Europe and elsewhere [39]. In their book on sustainability, Armin Grunwald and Jürgen Kopfmüller state that in recent years, knowledge and discussion on the concept of sustainability has grown due to increasing media coverage [21: 221]. In 2001, the German Federal Government established the board for sustainability which aims to provide a basis to preserve the ecosystem as well as quality of life, solidarity, and economic development. At that time the term sustainability was not very well known to the German public, In 2004, only 20 % of German citizens knew about the concept. By 2010, the number had already increased to 40 % [22]. This indicates a rapid increase which correlates with media coverage, as Grunwald and Kopfmüller claim.

Nevertheless, the role of mass media for sustainability communication has to be seen critically: Indeed some issues that belong to the concept of sustainability—such as unemployment, education, environment and climate protection—have been discussed intensively in the public for a long time, but often not in an adequate way [21: 222]. A closer look at media grammar shows that for example as a mass medium, television has the potential to reach a broad audience on the one hand. But on the other hand, television is subjected to restrictions because of its audio-visual format and specific television characteristics. The problem in a nutshell: The complexity of sustainability communication conflicts with the strategies of personalization and emotionalization which are usually used in mass media in order to increase popularity and viewing rates.

⁴ Engl. translation: Sustainability.

Friedrich Küppersbusch, a German journalist and producer, hit the nail on the head, explaining (somewhat cynically) that television cannot be successful in regard to its audience rating if it is sustainable or tries to have an impact on sustainability [21: 223]. Additionally, in their bestselling book *Spielball Erde, Machikāmpfe im Klimawandel*⁵ [36]. Claus Kleber (a very popular German television news anchor) and Cleo Paskal (a specialist for geopolitics at Chatham House, Royal Institute for International Affairs, London) point out that television does not offer enough room for complex contexts. Kleber and Paskal explain that this conflict was the reason why they decided to publish a book as a supplement to their television documentary [36: 11]. This clearly shows the importance of the slower and more permanent medium book for a deeper reception and understanding of information.

Kleber and Paskal call for a responsible handling of the media in regard to the public perception of environmental topics. In their opinion, it is necessary to carefully gauge which topics are more relevant: serious conflicts around the globe, arguments between two parties in a country or topics like child care subsidies. Journalists should not only ask which information people expect from the media, but also which information they should be confronted with. Kleber and Paskal name very high production requirements and economic considerations as the main reasons for the inadequate media coverage on sustainability topics. In essence, it is much easier and cheaper to raise interest for scandals in the nearby environment than for conflicts about drinking water in remote locations [36: 286].

In addition, even when documentaries revolve around environmental topics, dramatization and editing can have a negative impact on the message, as Joachim Radkau indicates in his recent book Die Ära der Ökologie.6 The so-called ecoalarmism is disorienting and distracts from the real problems [48: 623]. For instance, as Radkau points out in respect to genetic engineering, symbolic exaggerations (so-called "Frankenstein fantasies") detract from more realistic risks like the monopolization of lucrative species by agro enterprises. The "cry-wolf" effect within the news coverage on environmental topics has the power to discredit itself, as seen during the debate about Germany's forest dieback or Waldsterben [48: 239]. In his book on targeted crisis communications, Christoph Rohde illustrates that, according to the theory of news values, crises are a perfect fit for the rules of media production. Therefore, choosing to report on an ecological crisis, for instance, is an economic decision, because the three news values simplification, empathy, and sensationalism increase the chance of publication [50: 168]. As indicated above, books can offer a more differentiated view of environmental (and other important) topics. In books, topics are less prone to fall victim to the news values that dictate mass media. In the following, we will turn to the historical development and the status quo of "green publishing" in Germany and it will become obvious how closeknit "green content" and "green publishing" are.

⁵ Engl. translation: Matchball Earth. Power Struggles Relating to Climate Change.

⁶ Engl. translation: The Era of Ecology.

Springer

"Green Publishing" in Germany: A Brief Historical Overview and the Status quo

In general, the green movement in Germany traces its history back to conservationism which came about following the Industrial Revolution. However, as aforementioned, Carson's book *Silent Spring* had an immeasurable impact on German society as well and was published at a time of great social upheaval in Germany. The ecological movement in Germany developed from the student protest movement of the late 1960s, gaining momentum in the 1970s and 1980s with the anti-nuclear energy protests. In 1980, the German party "Die Grünen" with their primarily environmental political program was founded; it was first voted into the German parliament in 1983 [53]. From 1998 to 2005, "Die Grünen" governed Germany in a coalition with the German left wing (SPD). Since then, Germany has been considered a forerunner in the ecological movement. Lately, Germany has been labeled as the "world's greenest country" [13]—in the international arena, Germany is called a "pacesetter" [6] in climate and energy policies. German citizens are considered especially prone to recycling and eco-friendly in general. The question is, then, whether this reputation applies to the German book industry as well.

There are some green publishers who trace their history back to the beginnings of the environmental movement in Germany, such as the Peter Meyer Verlag in Frankfurt (www.petermeyerverlag.de), which originated from the German hippie and commune movement and was founded in 1976 [46]. The publishing initiative began by printing books that helped structure and organize the green movement, such as address books and catalogs of alternative projects. Hence, it is not surprising that the Peter Meyer Verlag has always chosen to print their books on recycling paper, even if this meant that the final product was less attractive. Today, the publisher focuses mainly on sustainable travel options, e.g. travelling within Germany without a car or round trips by train in Italy; these guide books are printed either on recycling paper or on paper certified by the Forest Stewardship Council (FSC; www.fsc-deutschland.de/). Since 2009, the Peter Meyer Verlag has donated part of its proceeds to climate-friendly projects, thus compensating for the CO2 that is emitted during the book production process. In the fall of 2009 it was awarded a certificate as a "climate neutral publisher" by ClimatePartner, which helps companies reduce and compensate their CO₂ emissions.8

Another example of a publisher that belongs to the "alternative niche", but is much younger than the Peter Meyer Verlag, is the Oekom Verlag (www.oekom.de).

⁷ Engl. translation: "The Greens".

⁸ There are several climate certification organizations in Germany such as ClimatePartner (www.climatepartner.com) or NatureOffice (www.natureoffice.com). While these certificates are certainly one way to compensate CO₂ emissions, during our conference, a heated debate ensued regarding the terminology. Achim Schorb (Institute for Energy and Environmental Research Heidelberg, ifeu), one of the principal investigators for the project "Nachhaltig Publizieren" (see below), reminded conference attendees that publishing cannot, in fact, ever be "climate neutral". Instead, he emphasized that the term "climate compensated" should be used on certificates etc. Otherwise, companies will invest in climate neutral certification without reflecting the fact that they also need to reduce their emissions instead of merely offsetting them financially.

Oekom is considered "the leading publisher for sustainability topics in Germanspeaking countries" [10: 31], having started out in 1987 as a publisher of journals about sustainability and ecological topics such as *politische ökologie*. Oekom has produced scholarly books about the same themes since 2005; In 2008, it broadened its scope to include non-fiction books. From 2009 onwards, Oekom's books have been distributed in cooperation with the large publishing house Carl Hanser Verlag [41].

Peter Meyer and Oekom can be considered niche publishers that have expanded and held their own since their foundations in the 1970s and 1980s. By the 1980s, however, larger publishing houses had realized that there was a clear demographic and thus a target group for "green content". A good example of this development is the publisher Rowohlt with its paperback travel book series "rororo anders reisen" (initiated in 1980), which catered to backpack tourists with an interest in the political and social background of the countries they traveled to, Some of these books were published on recycled paper. Rowohlt also experimented with recycling paper in books belonging to other series—whenever the topics could be described as "green content". For example, in 1980, in the young adult paperback series "rororo panther", a songbook titled *Griine Lieder* and an ecological DIY handbook titled *Umschalten!* were printed on recycled paper [40].

Besides the fact that some publishers printed selected titles on recycled paper, there was a larger discussion in the 1980s and 1990s regarding the shrink wrap packaging of books. In the trade magazines, publishers briefly discussed whether to forego shrink wrap altogether to minimize garbage. However, this idea was soon given up due to the fact that books without shrink wrap did not sell as well. The discussion was revived in 2012 and some publishers have since foregone shrink wrap entirely, such as Beltz (see also more on Beltz below). The Swiss literary giant Diogenes has decided on a compromise. Hardbound books are shrink wrapped. However, the plastic used is biodegradable [14, 33].

Since the turn of the millennium, greener publishing strategies have gained momentum. For example, the first FSC-certified book was published in Germany in 2005 [31] and since then, large media conglomerates such as Bertelsmann have agreed to print only on FSC-certified paper. In 2008, Bertelsmann developed and introduced their so-called "be green" strategy for the entire corporation, which includes the exclusive use of FSC-certified paper as well as other dimensions of greener production and publishing [18]. In 2012, the scholarly publisher De Gruyter followed suit. On April 24, 2 days after Earth Day (April 22), the publisher held a "Green Day" workshop and conference to explore possibilities for greener publishing, but also for greener company values and office habits. The result was the concept "De Gruyter goes Green", which has since been adopted by the company, and it includes a multi-faceted approach to a greener work environment such as bicycles for employees in Berlin and Munich or a vegetarian day in the

⁹ Engl. translation: "rororo [brand name] alternative traveling".

¹⁰ Engl. translation: Green Songs.

¹¹ Engl. translation: Flip the Switch!

Springer

cafeteria. In addition, since the beginning of 2012, De Gruyter has been printing 100 % of its products on FSC-certified paper [12].

The fact that several German publishers, including the conglomerate Bertelsmann, see themselves as trailblazers towards a greener book industry, has not gone unnoticed by others in the book and media industry. For instance, in September of 2012, the first international trade fair on sustainable publishing, the EcoPrint trade fair, took place in Berlin. The organizers explained in their introduction that Berlin was the obvious place as it was generally known as an environmental pioneer. Most of the exhibitors focused on book and media production, that is, printing books and other materials. Originally, a follow-up fair was planned for October of 2013 [38]. Unfortunately, this fair will not be taking place; reasons were not given. While this fair's location in Berlin can qualify only as anecdotal evidence, there are initiatives in Germany that are dealing with the problem of sustainable publishing on a broader scale. In addition, in the past few years, there has been a small surge of new publishing projects and imprints that have dedicated themselves to sustainability.

Project "Nachhaltig Publizieren"

In 2011, Oekom initiated a project titled "Nachhaltig Publizieren—Neue Umweltstandards für die Verlagsbranche" ¹³ (www.nachhaltig-publizieren.de). The goal of the project is to encourage green publishing measures in the book and printing industries by pooling existing resources and making them available as well as by funding and publishing new research on the topic; and, above all, by putting the topic on the industry agenda irrevocably. In particular, this project aims to gather material systematically and make best practice suggestions to members of the book and printing industries. The project is supported by the German Federal Environmental Ministry and its partners are Frankfurt Book Fair, the Institute for Energy and Environmental Research Heidelberg (ifeu) and the Institute for Ecological Economy Research (IÖW).

After the Kick-Off-Event at Frankfurt Book Fair 2011, a first, large part of the project was completed and presented at the Frankfurt Book Fair 2012. The project started by focusing on the two areas of book production which have proven to provoke the largest environmental impact: the production of paper (40 % of the wood produced for industrial purposes goes towards the production of paper) and the printing processes (besides the energy that goes into printing, the European Union alone uses about a million tons of printing ink a year) [7]. These two areas were analyzed during the course of 2012, and workshops were held, for example at the world's largest printing fair, the drupa, in May of 2012. In October 2012, best practice suggestions for the production of paper and for the printing process were presented at the Frankfurt Book Fair and have since then been published [45]. The

¹² Cf. Marcus Timson (organizer of EcoPrint 2012), in discussion with the author Corinna Norrick-Rühl, June 6, 2013.

¹³ Engl. translation: Green Publishing—New Environmental Standards for the Media Industry.

16-page brochure is entitled "Ideas for Greener Pages" (the German version is available online; the English version will be released shortly) and besides giving an overview of the results, the brochure also features "The Basics of Sustainable Publishing" at a glance.

These basic suggestions are very pragmatic and realistic for everyday implementation and integration into the workflow. For example, instead of proposing a new environmental label on the basis of its research, the project "Green Publishing—New Environmental Standards for the Media Industry" compared and contrasted existing ecolabels such as the Nordic Ecolabel and the Blue Angel. The goal was to help printers and publishers decide which label fulfills the highest criteria and which is thus the best possible choice.

The project has met with "positive reception in the industry", as delineated in a profile of the publisher Oekom and the project in the journal *Biodiversity and Good Company* in 2012 [10]. Publishers can make a voluntary commitment to oblige by these suggestions, but so far, neither the German book industry nor the German Federal Environmental Ministry have taken any further measures to make these "ideas" into regulations. ¹⁴

The project received funding for a 20-month period, from August 2011 to March 2013, and the results pertaining to paper and the printing process show how important this project is. At the moment, it is not clear whether the project will continue, but the project directors hope that they will be able to continue as originally planned, focusing on distribution and packaging next.

New Series and Imprints in the Children's Book Sector

German consumers who are willing to spend more money on groceries if they are organically grown and produced are also more likely to buy books than the average German consumer, as shown in the 2011 Allensbach Marki- und Werbeträgeranalyse (AWA). In 2011, 58.6 % of the German population said they had bought at least one book in the last 12 months. Among those who regularly buy organic food, 81.3 % had also bought at least one book in the last 12 months. The numbers for mothers mirror this development as well (69.2 % of mothers bought at least one book in the last 12 months; 87.9 % of mothers who regularly buy organic food bought at least one book in the last 12 months) [15]. Some results of the 2012 AWA were presented by Steffen de Sombre at our conference in January. They confirm the 2011 results. On the one hand, this means that publishers should pay more attention to their sustainability policies and offer their buyers products made on designated ecolabel paper. However, de Sombre explained that books are different because they are not necessarily considered "replaceable" like regular food versus organic food. That is, a consumer has the choice of buying either a traditional lightbulb or an eco-friendly lightbulb; both however fulfill their purpose. Books. on the other hand, are often very specific commodities. If the exact book a consumer

¹⁴ As of July 2013, the project initiators were involved in establishing a printing ecolabel called Blauer Engel Druck as a direct result of the initiative. However, no final decisions had been made at the time of submission of this article.

Springer

would like to buy is only available on non-recycled paper, then she will have to buy it anyway, or choose not read the book. This applies to most genres—due to their specific content, books are not interchangeable. Increasingly, though, consumers will be able to choose between the purchase of a printed book and an e-book, raising different issues altogether, as discussed briefly below in relation to German research findings.

Additionally, it could be argued that in some areas, such as children's books, the market is so saturated that consumers have alternatives. That is, if consumers would like to buy a board book or a soft book for an infant, they can choose from a large variety of products. Moreover, the numbers that the AWA studies have published show that parents in particular are willing to pay a higher price for organic products as well as to buy books in general.

For exactly this reason, the traditional German children's book publisher Friedrich Oetinger (founded in 1946)—the German publisher of classics such as Astrid Lindgren's Pippi Longstocking and Leo Lionni's work [35: 116–121] decided to launch a new imprint for soft books and soft toys for infants. Their imprint Octinger Natur (www.octinger-natur.de) was first announced in May of 2012 and the first products were sold in August of 2012. A small variety of soft books, a dozen soft toys and a bib are now on sale. The prices are higher than for regular soft books and soft toys, but Oetinger hopes to attract consumers who will be willing to pay a premium for their "100 % organic" products. All of the Oetinger natur products are manufactured by hand on the organically certified and socially responsible SEKEM farm in Egypt (www.sekem.com); the products carry both the Global Organic Textile Standard (GOTS) and the Fairtrade Certified Cotton labels. In this respect, Octinger fulfills another dimension of sustainability, namely corporate social responsibility. The SEKEM farm in Egypt has won awards such as the so-called "Right Livelihood Award" in 2003, which is also known as the "Alternative Nobel Prize".

As the production director Stephan Born explained at the Mainz conference on Green Publishing in January 2013, some compromises have been made. For example, although the fabrication of the books and toys is controlled throughout (from the cotton plant to the cardboard packaging), once the products have arrived in Germany they are distributed according to the regular German distribution systems—which again cause pollution and possibly contamination that is not accounted for in the "100 % organic" guarantee.

Regarding their choice of a Fairtrade-certified partner, Oetinger is certainly a trailblazer within the book industry. Naturally, the research and preparation for this special line of products has taken many years. It is still too early to say for certain whether the investments Oetinger made into research and marketing will pay off. In addition to this exceptional project, Oetinger is also making an effort to integrate sustainable options into their everyday business decisions. 95 % of Oetinger's entire book production is printed on FSC-certified paper [17]. In addition, Oetinger has experimented further with greener production methods. In October of 2012, they published the "first eco-friendly audio book" in cooperation with the Nature and Biodiversity Conservation Union (NABU), one of the oldest and largest environmental associations in Germany [42, 52]. The CD was fabricated from recycled



materials in a process which has been certified by the Blue Angel ecolabel. The booklet was printed on recycled paper. The patented, plastic-free packaging is called JakeBox⁸⁰ (https://jakebox.com); in addition, the CD was not shrink wrapped before it was sent to stores. Furthermore, 50 Eurocents are donated to the snow leopard project of the NABU for every audio book sold. Appropriately, this "eco-friendly audio book" tells children 27 Unbelievable Tales of Exinct Animals [49].

In February of 2012, even earlier than Oetinger, Tessloff (a children's publisher, traditionally specializing in non-fiction; for instance, they successfully publish the German versions of the *How and Why Wonder Books* series to this day, cf. [35: 138–139]) launched the fictional board book series "Das grüne Buch". The two first board books deal with monsters [8] and insects [9] and are printed in Germany (or in another EU member country). The books are made up of 98 % recycled materials; the paper used for the books is FSC-certified. The colors in the books were chosen to complement the natural recycled cardboard background [cf. 23]. So far, four titles have been published [8, 9, 27, 28]. Interestingly, though, Tessloff lags behind Oetinger regarding the media attention they have received. This is probably a direct result of the strong and professional marketing efforts of the publisher of Astrid Lindgren and Leo Lionni. For instance, while Oetinger natur has its own website, the series "Das grüne Buch" is difficult to find on the main Tessloff website.

Another children's publisher experimenting with new, eco-friendly products is Beltz & Gelberg, a long-standing imprint (founded in 1971 [35: 18–19] of the non-fiction publisher Beltz Verlag (www.beltz.de, specializing in psychology, pedagogy, education) [2]. In 2013, they launched their series "100 % Naturbuch" with two board books: *Mein kleiner Wald* ¹⁷ [59] and *Mein kleiner Garten* ¹⁸ [58]. It is striking that just as the environmentally friendly audio book by Oetinger dealt with extinct animals, both of these board books deal with nature as well as being produced in an eco-friendly way.

Mein kleiner Wald was recently named one of Germany's 25 most beautiful books—the jury explained that the book is "an invitation to compare and contrast forms and colors with one another. Printed on ecological cardboard with natural printing ink, this children's book sets itself apart in a positive way from the everyday products in this market segment; it sends a signal through its materiality." [3]. The jury will pick Germany's most beautiful book on the basis of its Top 25 List in September.

A hitherto unpublished interview with the production manager and the editorial department responsible for the book shows how many challenges had to be

¹⁹ German original: "'Mein kleiner Wald' sei 'eine Einladung, Formen und Farben miteinander zu vergleichen, zu unterscheiden. Gedruckt auf Ökokarton mit Naturfarben, setzt sich dieses Kinderbuch wohltuend von den herkömmlichen Produkten dieses Marktsegmentes ab und setzt ein Zeichen durch seine Materialität'".



¹⁵ Engl. translation: "The Green Book"

¹⁶ Engl. translation: "100% Nature Book".

¹⁷ Engl. translation: My Small Forest.

¹⁸ Engl. translation: My Small Garden.

overcome in order to manufacture a truly "green" book. For instance, the natural brown color of the cardboard (400 g Ökoboard, made from 100 % recycled paper) went well with the illustrator Katrin Wiehle's use of earthen colors. But it was hardly possible to print white or lighter colors. Finally, the printing speed was diminished to maximize the color saturation using, among other materials, recycled-compatible printing ink (Ökospeed). In addition, the illustrator, who works digitally, had to design the drawings without actually knowing how the colors would look on the brown cardboard, making the process much more difficult than with regular white paper used in conventional picture books.

Another children's publisher jumped on the bandwagon this year. Arena (www. arena-verlag.de, founded in 1949 and well-known for their books for early readers [35: 10–11]) released a new eco-friendly board book series for children 1 year and up called "kiddinatur" with the slogan "Gut für Kinder, gut für die Umwelt" [1]. According to the publisher, the colors used are based on vegetable oil, the finish is water-based, the glue is solvent-free and the paper is produced with a high percentage of recycled materials. The books are produced in Germany and comply with the European toy standard (EN 71). Six titles were published by June 2013 but they were not noticed by the trade magazines and even on the website of Arena they are difficult to find.

These examples can give us an idea which challenges lie in store if the industry truly aims to make green publishing the norm and not the exception to the rule. It seems that in the case of the Oetinger audio book and the Beltz board books, publishers still will only "go all the way" and invest in 100 % eco-friendly production methods when they are sure there is a correlation with content that will motivate buyers additionally. In addition, all of these examples have come from the children's book sector since there are high hopes that parents and grandparents will be willing to pay a premium for eco-friendly children's books. But looking forward, the decisive question is whether publishers are willing to implement new printing and packaging strategies on an everyday basis.

In addition, the publication of a World Wildlife Fund For Nature (WWF)-funded study on rainforest wood in German children's picture books showed that while Oetinger, Tessloff and Beltz are headed in the right direction, there are several German children's publishers that are apparently not being as conscientious as they should be. The study stated that 28 % of the children's books that were analyzed (sample size: 79 books) contained fibers from mixed tropical hardwood [30: 29]. WWF published the findings right before Christmas. 2012 in order to have a maximum effect on consumers [25]. The aggressive title *Ini Wald, da sind die Räuber. Tropenwaldzerstörung für Kinderbücher*²² led to a widespread reaction in the media. The 2012 study followed up on 2009 findings from a similar

²⁰ Thank you to the press department of the publishing house Beltz & Gelberg, in particular to Ms. Yvonne Dick, for giving us access to the interview before it was published in the trade journal buchreport. This paragraph summarizes main ideas of the interview in translation.

Engl. translation: "Good for children, good for the environment".

²² Engl. translation: There are robbers in the forest. The destruction of the rainforest for children's books.

examination, which had identified a quota of 37 % (sample size: 51 books published by 43 different publishers) [29]. WWF reproached the publishers for not having reacted accordingly. But the studies were also criticized for their simplification of the realities of the market and of paper production. Stefan Hauck argued in the Börsenblatt that the study was misleading [26]. First of all, in the 2009 study, books from earlier years were tested; publishers that had changed their policy in the meantime were angry that this had not been taken into consideration [24]. Also, the titles seem to blame all children's publishers, even though in 2009, 60 % of the books passed the analysis. In addition, in 2009, Hauck emphasized that certified recycled paper can contain fibers from mixed tropical hardwood. According to Hauck, it takes seven recycling loops for the fibers to break down to such an extent that they can no longer be identified.

Greening the German Book Industry: Other Discussions and Dimensions

Several decisions towards a greener book industry need to be made by the publishers (and supported by the customers). However, there are other areas that will need to be taken into account if the goal is truly a greener book industry in general. First and foremost, avoiding waste instead of merely recycling waste should be a priority. In this respect, the massive overproduction of books in Germany that has been going on for decades needs to be taken into consideration. The overproduction can be hinted at by looking at numbers of returned books. In the past years the number of returns has reached an all-time high. In 2012, 28.6 million printed books, that is, 7.73 % of the books ordered in Germany, were returned, as shown in the logistics survey of the Börsenverein, the German book trade organization [54]. These books usually end up being re-shipped to remainders sales or often are simply pulped. The ecological footprint of unsold books remains a large-scale problem that the industry faces.

Many members of the industry hoped that they had found a solution to the problem when printing on demand became popular at the beginning of the millennium. But printing on demand cannot be the miracle that will solve the overproduction problem of the industry; Ernst-Peter Biesalski confirmed this early on in 2000 in the *Börsenblatt*, explaining why print on demand would cause new problems. For instance, from an ecological standpoint, it is important to remember that the ink which is used in digital printing is often more problematic than that used in other printing processes, especially in regard to its deinkability [4, 5].

A second issue which needs to be mentioned is the distribution system in Germany. The German book industry guarantees overnight shipment of books to any book store in Germany. This customer service option is something that the members of the German book industry are very proud of. However, it has a devastating ecological footprint. Books are delivered almost exclusively by trucks. Often, the whole system is carried to the extreme because there is usually more than one truck involved. German wholesalers have expanded their ordering times more and more, yet still guarantee the overnight shipment. Thus, they have to transport books throughout Germany in little more than 12 h time. The large trucks are too slow to reach bookstores in time if they are not sent off by noon of the previous day.



Orders which come in later are packed on additional, smaller (and thus faster) trucks which then follow the larger trucks to meeting points.

Thirdly, in this day and age, we also need to look beyond the realities of paper production, printing technologies and distribution of printed matter and think about the new forms of reading as well. But estimating whether e-readers/e-books or traditionally printed books are less harmful for our ecosystem is quite a challenge. In principle, a reliable comparison would have to take five large areas into account: the materials, the manufacture, the distribution, the reading process itself, and the disposal of the e-readers. However, it is very difficult to get reliable information that encompasses these different dimensions of the discussion. German researchers have tried to answer the difficult questions regarding the ecological footprint of e-reading. The most recent and reliable study was published in 2011. PROSA E-Book-Reader, Entwicklung der Vergabekriterien für ein klimaschutzbezogenes Umweltzeichen.²³ prepared by the Öko-Institut e.V. in Freiburg and supported by the German Federal Environmental Ministry, considers multiple facets of the discussion in order to develop an ecolabel for e-readers [37]. For example, the study assumes that the production of e-readers takes place in Asia and includes the transport of the e-readers to Germany by boat and airplane in the ecological footprint. One of the results is that the production of an e-reader leads to the emission of 8 kgs of CO2, whereas a printed book will lead to an average of 1 kg of CO2. But then, another point of contention is the actual reading life of the e-reader—which is similarly difficult to gauge. PROSA tried to include this in its study as well, considering the fact that traditional books are usually read with the help of a reading lamp, for example.

PROSA did finally formulate certain criteria for an e-reader ecolabel with very specific characteristics, even mentioning that e-readers should be compatible with any kind of standard loading device in order to avoid users turning on their laptops to load the e-reader, However, the PROSA study authors are quite aware of the limitations of such numbers and comparisons. Florian Nehm, Head of Corporate Sustainability & EU Affairs of the Axel Springer AG, which publishes numerous newspapers and magazines in Germany, voiced a similar opinion.24 He explained that a comparison between e-readers and traditional reading is hardly feasible at all. He said that a comparison does not take the fact into account that reading digitally and traditionally are not interchangeable-they fulfill different functions for different consumers. For example, there are many readers whose reading habits have changed drastically due to the availability of e-readers. Nehm's criticism is certainly correct. In order to fulfill green publishing criteria, both print and e-books have to be conceived of as individual products and their ecological footprint must be improved independently of one another, irrespective of whether people choose to e-read or not.

²³ Engl. translation: PROSA E-Book-Reader. Development of criteria for the award of climate-friendly ecolabels [to e-book readers].

²⁴ Cf. Florian Nehm (Head of Corporate Sustainability & EU Affairs, Axel Springer AG), in discussion with the author Anke Vogel, January 10, 2013.

In fact, several studies and researchers in Germany and the USA have come to the final conclusion that the public library is the only way to be sure that readers are making the greenest decision. Still this is not always an option and there should be a better way for consumers to make well-informed, sustainable decisions. In particular in light of the fact that consumers will increasingly be able to choose between printed books and e-books, their options need to be more transparent (cf. also [51]). This issue could tie into the project "Nachhaltig Publizieren" as well. So far, this project has raised awareness within the book industry, but perhaps consumers need to be better informed.

To truly move forward, criteria need to become more transparent and publishers need to be put under pressure to transition towards greener printing and production strategies. This pressure could come from interested consumers, but it should also come from above. The German Federal Environmental Ministry was involved in both the *PROSA* study and the project "Nachhaltig Publizieren", which is commendable. Nonetheless, the government should take more responsibility in making the criteria a reality in everyday book and e-reader production.

Conclusions and Outlook

This overview of green publishing trends in Germany has shown that while there are interesting projects, there is still much to be done. The role of the media and in particular books for the development of sustainability awareness is indisputable. Hence, it is important that publishers give green content a prominent place in their programs to increase awareness, as in the case of CliFi or in non-fiction books like Claus Kleber's *Spielball Erde*. The book as a comparatively slow medium that offers background information is the ideal place to move the discussion about ecology and sustainability forward. For instance, the film *More Than Honey* (2012) that dealt with the mass death of bees worldwide was followed by a book about the phenomenon, written by the film's director Markus Imhoof and the journalist Claus-Peter Lieckfeld. It was published in 2012 and has since been reprinted twice [32]. The publisher Orange Press wrote on its website that the book "gives background information and details where the film can only show images" [43].²⁵

Another example of how to use green content to raise awareness for ecological problems is a green fiction writing competition for young writers between the ages of 12 and 25; the deadline is in August 2013. Support for the competition comes from, among others, the popular fiction publisher Bastei Lübbe and the Deutsche Bundesstiftung Umwelt (DBU) [19]. This competition is particularly promising since it encourages young adults to think and write about green topics. It is especially sensible to publish green content in a sustainable way, which most of the examples we have presented have committed themselves to.

²⁵ German original: "Im Buch [...] präsentieren der Regisseur und Claus-Peter Lieckfeld Hintergründe und gehen da ins Detail, wo der Film sich auf Bilder beschränken muss.".

Springer

But green content constitutes only a minute fraction of the output of Germany's publishing industry. Moreover, the projects that fulfill the highest standards have so far been experiments by children's publishers who hope to appeal to a certain demographic with exclusive products. If green publishing is to be more than a mere passing trend, entire publishing programs need to be transitioned into more sustainable production processes. Otherwise, the risk remains that individual projects and initiatives will be viewed as "greenwashing" strategies, covering up realities of large-scale children's book production in Asia with mixed tropical hardwood papers, as illustrated by the two WWF studies, for example.

To avoid the impression that these smaller projects and series are "greenwashing" measures, there need to be clearer criteria for consumers. Often, consumers believe that the FSC-certification is the best possible option in the book industry. The results of the project "Nachhaltig Publizieren" are a first step towards more transparency and better information, but an enforcement of the criteria should be undertaken. At least, the Börsenverein and other book trade associations should take a stand and encourage their members to sign a voluntary self-commitment paper to adhere to the criteria.

In addition to the industry itself and the consumers, other stakeholders can use their positions to make a difference. Greenpeace recognized this potential and founded the international initiative "Greenpeace Book Campaign" in 2000 with Canadian authors [20]. Joanne K. Rowling is an ideal example with the seventh volume of her *Harry Potter* series. She requested that it be printed on recycled or ecolabel-certified paper [55]. In Germany, the Carlsen Verlag [35: 30–31] decided to print the book on FSC-certified paper, like Scholastic, Bloomsbury and Gallimard for the American, British and French versions. Some German-language authors who have joined the "Greenpeace Book Campaign" are the Nobel laureate Günter Grass, the Austrian author Marlene Streeruwitz, and the extremely popular literary critic Elke Heidenreich [20, 55].

More generally, it is obvious that this is not a national cause. Due to the global ties of corporations, but also due to the realities of book and e-reader production in Asia and the transport of goods from overseas, greening the book and printing industries needs to be dealt with on an international scale. *Publishing Research Quarterly* and other scholarly journals as well as trade magazines and international platforms such as *Publishing Perspectives* (http://publishingperspectives.com) could play an important role in mediating and moving this discussion forward, thus enabling green publishing to pass from a trend to a true transition.

References

- Arena Junior Frühjahr. http://forum.arena-verlag.de/download/2013_FJ_Kinderbuch.pdf (2013). Accessed 25 June 2013.
- Beltz & Gelberg geht ins Naturbuch, Boersenblatt,net, February 4, 2013, www.hoersenblatt.net/ 593119/, Accessed 25 June 2013.
- Beltz Verlag. "Stiftung Buchkunst zeichnet Katrin Wiehles 'Mein kleiner Wald' aus." Press release,
 May 2013. www.beltz.de/de/verlagsgruppe-beltz/presse/pressemeldungen/pressemeldung/artikel/



- 2013/05/23/stiftung-buchkunst-zeichnet-katrin-wiehles-mein-kleiner-wald-aus-1.html. Accessed 25 June 2013.
- Biesalski EP, Wunderdroge? Möglichkeiten und Grenzen des Digitaldrucks. Börsenblatt. 2000: 167(65):7–11.
- Biesalski EP, Print on Demand—Verlegen ohne Risiko? In: Delp L, editor. Das Buch in der Informationsgesellschaft. Ein buchwissenschaftliches Symposion. Buchwissenschaftliche Forschungen 6. Wiesbaden: Harrassowitz; 2006. p. 237–62.
- Blue L. Lessons from Germany. Time, April 17, 2008. www.time.com/time/specials/2007/article/ 0.28804.1730759_1734222_1734213-2.00.html. Accessed 25 June 2013.
- Branche mit erheblicher Umweltrelevanz, Börsenblatt,net. October 10, 2012. www.boersenblatt.net/ 552698. Accessed 25 June 2013.
- Braun C, Planting K. Das grüne Buch. Was Monster so für Sachen machen. Nuremberg: Tessloff; 2012.
- Braun C, Planting K, Das grüne Buch, Johnny Grashüpfer und die Wiesengang, Nuremberg: Tessloff: 2012.
- Company Profile/Challenges and How ockom verlag Takes Responsibility/Best Practice: green publishing—use of recycled and Forest Stewardship Council (FSC)-Certified Paper". Biodiversity in Good Company. 2012;31–32. www.nachhaltig-publizieren.de/fileadmin/GP/2012_09_Best_Practices_at_CoP_11_Jow-resolution_ockom-Sciten_01.pdf. Accessed 25 June 2013.
- cro. "Gut f
 ür die Umwelt—und f
 ür die Bilanz." B
 örsenblatt. 2012;179(41):30–31. Enlarged version. www.boersenblatt.net/551929/. Accessed 25 June 2013.
- De Gruyter. De Gruyter goes Green-Volont\u00e4re und Auszubildende veranstalteten Green Day. Press release, April 26, 2012. www.degruyter.com/dg/page/75/aktuelle-presseinformationen. Accessed 25 June 2013.
- de Quetteville H. Germany 'is world's greenest country'. Telegraph, June 20, 2008, www.telegraph.co.uk/earth/earthnews/33-44978/Germany-is-worlds-greenest-country.html. Accessed 25 June 2013.
- Ein Relikt aus der Hochzeit des Plastikmülls. Buchbox: Verlage sollten Bücher nicht mehr einschweißen, Buchreport.de, June 6, 2012. www.buchreport.de/nachrichten/handel/handel_nachricht/ datum/2012/06/06/ein-relikt-aus-der-hochzeit-des-plastikmuells.htm. Accessed 25 June 2013.
- 15. ep. Bio im Buchregal. Börsenblatt. 2012;179(19):18.
- Evancie A. So hot right now: has climate change created a new literary genre?" NPR Weekend Edition Saturday, April 20, 2013. Audio file (5 min 26 s) and transcript, www.npr.org/2013/04/20/ 176713022/so-hot-right-now-has-climate-change-created-a-new-literary-genre. Accessed 25 June 2013.
- Friedrich Oetinger Verlag/Oetinger Natur, Unsere Philosophie, www.oetinger-natur.de/unserephilosophie/, Accessed 25 June 2013.
- Gaertner K. Die Bertelsmann Umweltpolitik. Last revised 2011. http://investor.bertelsmann.com/bertelsmann_corp/wms41/customers/bmcr/pdf/130124_Bertelsmann_Umweltpolitik.pdf. Accessed 25 June 2013.
- Green Fiction. Der Umweltschreibwettbewerb f
 ür junge Autorinnen zwischen 12 und 25 Jahren. Lizzynet. Last modified March 15, 2013, www.lizzynet.de/wws/green-fiction-schreibwettbewerb. php?sid=15298699737321267336333393393.
 Accessed 25 June 2013.
- Greenpeace Book Campaign, Greenpeace.org, Press release, August 7, 2006, www.greenpeace.org/ international/en/campaigns/forests/greenpeace-book-campaign/. Accessed 25 June 2013.
- Grunwald A, Kopfmüller J. Nachhaltigkeit. Eine Einführung. 2nd ed. Frankfurt am Main: Campus Verlag: 2012.
- 22. Hagedorn F, Meyer HH. Marie-Luise Braun, and Michael Heming. "TV-Medien und Nachhaltigkeit. Kurz-Studie zur Ermittlung von Formen. Hindernissen und Potenzialen der Darstellung von Nachhaltigkeitsthemen in ausgewählten deutschen Fernsehprogrammen im Auftrag des Rates für Nachhaltige Entwicklung. Rat für Nachhaltigkeit." texte, no. 13 (July 2004), www.nachhaltigkeitsrat. de/de/dokumente/studien/studien/studie-tv-medien-und-nachhaltigkeit/. Accessed 25 June 2013.
- Hänel A, Hummel N. Originell und ökologisch. 'Das grüne Buch'—Neue Pappbilderbücher aus Recycling-Material. Press release. [January 2012]. www.tessloff.com/fileadmin/user_upload/ dokumente/Presse/Unternehmen/das_gruene_buch.pdf. Accessed 25 June 2013.
- 24. Hauck S. Gutes Papier, böses Papier, Börsenblatt. 2009;176(44):23.
- Hauck S, Image ohne Tropensplitter, Kinderbücher, Börsenblatt. 2012;179(49):12. Published as "'Kinderbücher brauchen ein gutes Image.' Kommentar zur WWF-Tropenholz-Studie." Börsenblatt.net, December 5, 2012. www.boersenblatt.net/575189/. Accessed 25 June 2013.

- Hauck S, Wald und Wirklichkeit, Bilderbuch, Börsenblatt 2009;176(44). Published as "Kinderbuchverlage unter Generalverdacht, Kommentar." Börsenblatt.net, October 28, 2009. www.boersenblatt.net/345392/. Accessed 25 June 2013.
- Heger AK, Lubenau K. Das grüne Buch. Ich hab dich trotzdem monstermäßig lieb. Nuremberg: Tessloff: 2012.
- Heger AK, Lubenau K. Das grüne Buch. Die Wiesen-Gang in voller Fahrt. Nuremberg: Tessloff; 2012.
- Hirschberger P, Jokiel D, Plaep C, Zahnen J. Tropenwaldzerstörung für Kinderbücher. Eine Analyse des Buchmarktes in Deutschland. Edited by WWF. 2nd updated ed. Frankfurt am Main: WWF: 2010. www.wwf.de/kinderbüchstudie2009. Accessed 25 June 2013.
- Hirschberger P, Beuter C, Gotthardt S, Zahnen J. Im Wald, da sind die Räuber. Tropenwaldzerstörung für Kinderbücher. Die WWF-Papieranalyse deutscher Kinderbücher 2012. Berlin: WWF: 2012, www.wwf.de/kinderbüchstudie2012. Accessed 25 June 2013.
- hol. Kiepenheuer & Witsch schwärmt für FSC. Greenpeace.de. Press release. February 7, 2005. www.greenpeace.de/themen/waelder/machrichten/artikel/kiepenheuer_witsch_schwaermt_fuer_fsc/. Accessed 25 June 2013.
- Imhoof M, Lieckfeld CP. More than honey. Vom Leben und Überleben der Bienen. 3rd ed. Freiburg: Orange Press; 2012.
- Irrwitzige Vergeudung, buchreport.express, 2012;43(23):20.
- Jackson G, Lenstrup M. Green publishing. In: Publishing Terms. A resource especially for authors. Last modified September 28, 2009. http://publishingterms.wordpress.com/author/gettingpublished/page/13/. Accessed 25 June 2013.
- Kinder- und Jugendbuchverlage von A bis Z. Edited by Arbeitsgemeinschaft von Jugendbuchverlagen e.V. (avi). Frankfurt am Main: avi; 2013.
- 36. Kleber C, Paskal C, Spielball Erde, Machtkämpfe im Klimawandel, Munich: C, Bertelsmann; 2012.
- Manhart A, Brommer E, Gröger J. PROSA E-Book-Reader. Entwicklung der Vergabekriterien für ein klimaschutzbezogenes Umweltzeichen. Freiburg: Öko-Institut e.V., June 2011. www.ocko.de/ ockodoc/1)79/2011-037-de.pdf. Accessed 25 June 2013.
- MessenInfo Online, Ecoprint Europe Berlin 2013, www.mcsseninfo.de/Ecoprint-Europe-M9907/ Berlin.html, Accessed 25 June 2013.
- Murphy PC. Books and the media. The silent spring debate. In: Nord DP, et al., editors. A history of the book in America. vol 5. The enduring book: print culture in postwar America. Chapel Hill: University of North Carolina Press; 2009. p. 447–71.
- Norrick-Rühl C. rororo-Taschenbücher für junge Zielgruppen im gesellschaftlichen Umbruch der 1970er und 1980er Jahre. Mainzer Studien zur Buchwissenschaft. Harrassowitz: Wiesbaden; forthcoming.
- Oekom Verlag, Verlagsgeschichte, www.oekom.de/allgemeine-verlagsinformationen/ucber-uns/ verlagsgeschichte.html. Accessed 25 June 2013.
- Oetinger audio sieht grün. Börsenblatt.net. August 7, 2012. www.boersenblatt.net/544696/. Accessed 25 June 2013.
- Orange Press. More than honey. www.orange-press.com/programm/alle-titel/more-than-honey.html. Accessed 25 June 2013.
- Oster S, Tagungsbericht: XVIII. Mainzer Kolloquium: Bio im Bücherregal? Green Publishing in Theorie und Praxis. Gutenberg-Jahrbuch. 2013;88:300–2.
- Oxenfarth A. 'Nachhaltig Publizieren' goes drupa. Press release, May 2012. www.nachhaltig-publizieren. de/fileadmin/GP/12_05_PM.pdf. Accessed 25 June 2013.
- Peter Meyer Verlag, Verlagsgeschichte, www.petermeyerverlag.de/verlagsgeschichte.0.html. Accessed
 June 2013.
- 47. Pufé I. Nachhaltigkeit. Konstanz, Munich: UVK; 2012.
- 48. Radkau J. Die Ära der Ökologie. Eine Weltgeschichte. Munich: C.H. Beck: 2011.
- Rajeak H, Laverdunt D. Unglaubliche Geschichten von ausgestorbenen Tieren. Audio book. Hamburg: Oetinger; 2012.
- Rohde C. Gezielte Krisenkommunikation im Spannungsfeld von medienökonomischen Zwängen und politischen Imperativen. In: Jäger T, Viehrig H, editors. Sicherheit und Medien. Wiesbaden: Springer VS: 2009. p. 161–82.
- 51. Roesler-Graichen M. Grüner lesen. Börsenblatt. 2012:179(6):22-3.
- 52. Schmuckes Klangkörperdesign. Börsenblatt. 2012;179(32):38.

- Schneider F. Von der sozialen Bewegung zur Institution? Die Entstehung der Partei DIE GRÜNEN in den Jahren 1978 bis 1980. Politische Parteien in Europa. 2. Münster: LIT, 1998. Cf. in particular the historical overview in chapter 2, p. 20–26.
- Schulte C. Auf halber Strecke. Börsenblatt. 2013;180(25):18–19. www.boersenblatt.net/626601/. Accessed 25 June 2013.
- Totz S. Harry Potter rettet fantastische Urwälder. Neuer deutscher Harry Potter-Roman auf ökologischem Papier gedruckt." Greenpeace.de. Press release, September 30, 2005. www.greenpeace.
 de/themen/waelder/presseerklaerungen/artikel/harry_potter_rettet_fantastische_urwaelder/, Accessed
 25 June 2013.
- Vision 2050: estimating the order of magnitude of sustainability-related business opportunities in key sectors. Edited by PricewaterhouseCoopers (PwC). Last modified February 2010. www.pwc.co.uk/ cn_UK/uk/assets/pdf/vision-2050-pwc-economic-estimates-feb2010-sustainability.pdf. Accessed 25 June 2013.
- Wenzel E, Kirig A, Rauch C, Greenomics, Wie der grüne Lifestyle Märkte und Konsumenten verändert, Munich: Redline; 2008.
- 58. Wiehle K. Mein kleiner Garten. Weinheim: Beltz & Gelberg: 2013.
- 59. Wiehle K. Mein kleiner Wald. Weinheim: Beltz & Gelberg: 2013.

