Academic Dissertation: Wading into Fisheries Coverage

Introduction

"Environmentalism is not about a desire to have cleaner water and air. It is now a full-fledged religion, and its main tenet is 'raw nature' as god-like, and Mankind as a plague infecting it. If you support environmentalism, the fact is that you're supporting an idealogy [sic] that promotes the destruction of Mankind - and concretely, that includes yourself and everyone you care about." (1)

The environmental movement emerged on the heels of Rachel Carson's landmark work, *Silent Spring*, which dared to uncover the harmful and lasting effects of pesticides on both humans and birds. Since then, the movement has grown in scope and number, proliferating in hundreds, if not thousands, of ecologically-minded organisations and campaigns across the globe. It has also spurred the growth of environmental journalism, which strives to uncover environmental abuses and explain their significance to a larger problem. Environmental journalism is a specialised branch of science journalism, which concerns itself with the impartial and critical reporting of all breakthroughs in science. (2) From coverage of the Love Canal disaster in eastern Pennsylvania to the gradual understanding of the existence of climate change and its subsequent effects, environmental reporters have aided in our understanding of changes in scientific fields that have direct impacts upon all our lives.

In preparing for my trip to Peterhead, I exhausted the available resources to find as many articles and analyses of the condition of fisheries since the adoption – or, according to some parties, the imposition – of the 2003 Common Fisheries Policy by the UK government. What I found was an obsession with balance from most outlets, namely the broadsheet press, which insisted on providing equal space for competing scientific assessments of the amount of fish available for harvest, and a need to balance the warnings of environmentalists with more optimistic-sounding government findings. I wondered if other science journalists were alarmed by this obsession to present all conflicting views in the face of an obvious and easily observable phenomenon in science. My conversations with leading science journalists confirmed my suspicion that this artificial balancing is a serious worry among most of them.

While I was doing my research and interviewing sources in north Scotland, I regularly felt out of my depth when I was confronted with competing scientific theories about potential for North Sea fisheries to rebound or collapse. While one environmental watchdog, the International Council for the Exploration of the Sea, presented seemingly undeniable evidence that North Sea was emptying at an alarming rate, another organization, such as the North Sea Regional Advisory Council or CEFAS (as part of DEFRA) maintained that advances were being made in preventing critical losses of herring and cod. I immediately began to wonder if all science journalists were presented with this issue, and how they could decide which scientific study was valid.

I also began to wonder about the nature of the news cycle and how exactly it fit in with the scientific world. In a world of round-the-clock news where breaking news reigns supreme, how could scientific developments, which usually come in slow, small steps, dare to compete with more immediate happenings in politics, crime and sport? Having worked in a variety of newsrooms, from a weekly magazine to an online news website which needed constant updates, I observed a difference in how most news was gathered and processed. In newsmagazines, which benefit from a less pressured timeline, there are ample opportunities to understand the context of a news item, and to consult many different experts on a given topic, before the article or news item is produced. In a newsroom such as CNN's, however, there is little time for extensive background research and verification, and an even greater need to portray all news as urgent.

This dissertation examines environmental journalism as it has covered the fisheries industry in the North Sea, while analysing the limitations and frustrations implicit within this particular branch of specialised reporting. I will explore the notion of 'misguided balance,' (3) in which less credible scientific sources are given equal weight; the perceived problem of having humanities-trained journalists cover scientific developments and controversies; whether or not the limits of the news cycle leads to a misrepresentation of science; and finally, the pervasiveness of advocacy positions among the work of environmental journalists.

I will be using the coverage of climate change and global warming as the prime example in this dissertation. Most environmental journalists have focused on this area, whereas not very many have focused on fisheries developments in their careers. The approach to climate sciences has only very recently undergone a significant change in coverage, in that the findings of climate and atmospheric scientists have been recognized by an international body – the UN's Intergovernmental Panel on Climate Change – as an immutable, incontestable truth. (4) However, other environmental findings, such as the global, gradual disappearance of fish in the oceans has yet to approach this level of certainty, in that many government and international bodies, including international fishery management organisations like the North Sea Regional Advisory Council, continue to maintain that fishing has not hit a critical point and should not be absolutely curtailed. Until there is an international fisheries board which can make an announcement akin to that of the IPCC that fisheries are in critical danger, there will be no achievement of consensus in reporting the real danger to our seas. Thus, I will use these journalists' experience in covering a much-contested scientific development as a backdrop for my own reflections on reporting on Scottish fisheries.

Chapter 1 – The Question of Balance

Every news story, every aspiring journalist learns, must represent both sides of a story or an issue clearly, giving equal weight to the arguments on both ends. Curiously, there is no editorial code for *The New Statesman*, for which I targeted these articles. *The Guardian* puts it this way:

> "The voice of opponents no less of friends has a right to be heard...It is well to be frank, it is even better to be fair (CP Scott, 1921). The more serious the criticism or allegations we are reporting the greater the obligation to allow the subject the opportunity to respond." (5)

This method of ensuring fairness, by balancing one quote against another from an opposing source, works very well for everyday news and political stories in ensuring that both sides of the story are told. But in the sciences – especially in the more contentious areas of science, of which environmental and climate sciences is one – this balance may be misleading and distort the reality of what is actually happening in the field. Matt McGrath, a climate change reporter for the BBC, said "There was a real pressure from correspondents [about including the sceptic perspective against

climate change]. They told their editors, 'This is what's going on, so we don't need the opposing voice.'" (6)

Balance has long been held as the determining factor for accurate reporting. Without balance, journalists can easily place their sympathies on one side of a particular issue, be it overfishing or a local planning decision, without giving the other side the opportunity of reply. But in science, which operates on a different plane from public policy or crime, this equal representation of varying theories and explanations does not fit the journalistic model as easily. Scientific findings and breakthroughs come only after a long history of experimentation and repeating of experiments, and are subjected to intense peer review before being accepted for publication by prestigious journals. Thus, presenting an opposing viewpoint to the latest peer-accepted development on the human genome project or on the isolation of a cell for cancer, is bound to run into controversial territory, as any competing explanation may not have gone through the same rigorous process. "Balance is not synonymous with accuracy," said Alan Weisman, author of the worldwide environmental bestseller *The World Without Us*. (7) "That kind of balance leads to distortion. An extreme example was from years ago – every time you would interview a lung specialist who said 'tobacco causes cancer,' you had to balance it with another doctor, who was probably a prostitute for the tobacco industry, who would say 'The results are inconclusive, etc.'"

The other problem with covering developments in environmental science, which is unique to the field of science reporting, is that there is no "control group" on which scientists can replicate the experiments done by others in their field to see if they obtain the same results. "We don't have another Planet Earth to do experiments on," said Weisman (8). This means that it took much longer than usual for the arguments of those scientists who argued that climate change was a direct result of man-made progresses and was having an adverse effect on our environment to be fully accepted by the international community. This resulted in "fringe" groups, like climate change sceptics, remaining a legitimate opposing voice which editors and reporters alike had to acknowledge. Chris Mooney writes:

"The journalistic norm of balance has no corollary in the world of science. On the contrary, scientific theories and interpretations survive or perish depending upon whether they're published in highly competitive journals that practice strict quality control, whether the results upon which they're based can be replicated by other scientists, and ultimately whether they win over scientific peers. When consensus builds, it is based on repeated testing and retesting of an idea." (9)

But other reporters are not so convinced that it was unhelpful to include the remarks of sceptics for so many years. "There are lots of shades of grey," said BBC Environment Correspondent Richard Black. "There are groups that range the whole spectrum. There are moderate sceptics and there are radical sceptics. You can't really say that there is really one definitive 'other side.'" (10) This became very clear as I did research into the actual assessment of fish stocks in the North Sea. On the one end was the much-vaunted International Council for the Exploration of the Sea (ICES), which regularly presented doomsday statistics about the state of the ocean's fish reserves each year. The other side of this argument – that fish were still in existence in large numbers – came in varying degrees from more moderate organisations such as the Centre for Environment, Fisheries and Aquatic Science (CEFAS), to the more militant Scottish Fishermen's Federation, which stubbornly insisted that fish levels were rebounding at levels never before seen. The issue here is that each of these groups brandished a full set of statistics which each maintained was scientifically based. Therefore, choosing a particular opposing voice – and putting it into the appropriate context – became a pivotal part of my research and choices in what I included in my stories, to achieve the greatest amount of clarity on the issue.

There has been a change in how environmental reporters and editors have handled this issue of creating a "false balance" – equating the validity of two variant scientific theories – in media coverage of climate change. Including the sceptic viewpoint "is no longer an issue," says Seth Boreinstein, an environmental correspondent for the AP in Washington DC. "I can remember, back in 2000, when I was working for Knight-Ridder newspapers. I was doing a piece on Alaska and how it was an early-warning example of climate change. It was an 1800-word piece, and I had a quote from a climate change skeptic in there. My editor said, 'You know what? We really don't need this – it doesn't pertain to the story.'" (11)

Matt McGrath, who covers the environment for the BBC, agrees that there has been a change. Before, presenting the opposing viewpoint was absolutely mandatory, he said, but as 90% of the world's scientists have rallied behind the report of the UN's Intergovernmental Panel on Climate Change, which declared that global warming was a result of human processes and was altering the environment, there is no longer a need to include the countervailing point in every story. "Now that there's a consensus approach, the focus has shifted to how we explain these problems and what we can do about them." (12)

While consensus may exist on the nature of climate change and its effect on weather processes and other climactic events, there is no sign of a real consensus in terms of fisheries management on a global scale. While publications like *The Independent* and *The Guardian* regularly take the position that fish stocks are disappearing and extinction is nearly inevitable, there are powerful scientific organisations that disagree with this general assumption. CEFAS is steadfastly optimistic in its estimation of cod regeneration in the North Sea especially, and does not foresee a similarly bleak future for this species or any other in regional waters. The Marine Conservation Society is also less inclined to subscribe to Armageddon-like forecast where all seafish will be extinct by 2048. There is still some time before an all-encompassing fisheries body, akin to the IPCC, will be able to issue an irrefutable statement about the dire level of fish biomass available in the world's oceans. Until that time, it will be necessary to include both sets of opinions.

Black mentioned another reason for including the sceptic view in his reports. "In my view, sceptics have no scientific relevance," he said. "But if I was doing a political story, I would include them because they do have political relevance." (13). I found this to be a vindicating statement, as I had included many of these sceptic arguments in my own pieces, which had a political dimension to them. Because fishermen are a politically powerful group despite how little their industry actually accounts for in the national GDP, their views on the future of the cod stock and the possibility of another Grand Banks disaster visiting upon them were important to include. It provided a useful

background in the perspective of this politically significant sector, but one that would not have been in place in a purely scientific story.

Finally, David Shukman, who regular presents environmental reporting for the BBC's Six O'Clock and Ten O'Clock news, believes that the print media may actually have a benefit over television news in the issue of balancing stories. "It's very difficult in broadcasting [to cover the full complexity of science issues], because it favours a very binary approach to reporting. There's a bit of a structural inclination to say, "Here's this view," and, "Here's an opposing viewpoint." (14) He said that print was much better equipped to provide nuances and context for viewpoints that television news, due to its time constraints and viewer interest, simply cannot.

Chapter 2 – The training of science journalists

When covering a scientific story over a long period or in great depth, as I did for this project, I at times felt it would have been helpful to have a more thorough background in fisheries biology and management, in that it would enable me to better appraise the validity of competing theories and explanations for the disappearance of hake and herring, as well as discern where there was any truth to fishermen's claims that the level of cod was not only higher than in previous years, but were in actually returning to their pre-overfished count.

The majority of journalists with whom I spoke firmly believed that a solid scientific education background was not necessarily for success in the science journalism field. All recounted stories of accomplished science correspondents who never had a formalised training in their specialism, and yet managed to cover the field in a way that brought clarity to their readers. In fact, some even suggested that humanities-trained journalists were perhaps better suited to bring science news to the general public because it would allow them to translate developments better for the mass media.

"At the end of the day, what I do is a branch of journalism, not a branch of science," said Paul Rincon, a Senior Broadcast Science Journalist at the BBC News website. "If you can't write, have no feel for what a story is or isn't, if you don't like doing the day-to-day details of reporting – these are

the skills you need to have." (15) Shukman agreed, and said that many scientists were unable to present their findings in ways that were accessible to the general public. "What the media wants is for things to be as clear as possible," he said. (16)

In fact, some reporters actually argued that their lack of scientific knowledge benefited them in presenting science-based stories. "You have to approach the topic from the basis of ignorance," said Matt McGrath, a BBC environment correspondent. (17) He said he felt he was better able to tell the story without bias or slant if he was unfamiliar with the issue beforehand. Seth Borenstein, an environment journalist for the AP, concurs. "I do my best explaining when I know the least of the topic," he said. "I've covered hurricanes since 1989, and I've found that the more you know, the more you tend to lapse into the jargon that scientists use. You tend to take the base knowledge of the reader for granted." (18)

I've found this has held true in my own research and reporting. After days and weeks of reading about measuring quotas, identifying the ideal Total Allowable Catch, and conferring with people about the issue of blackfish, I was tempted to write my articles assuming that readers had the same level of familiarity with the topic as I did. Many times, I needed fresh eyes to read over my copy to ensure that I was approaching the topic from a general perspective, and not that as a fisheries management specialist.

There are other reasons why a science background may be less helpful in covering science news. Rincon said, "A PhD in biology doesn't necessarily prepare you for a story on participle physics." (19) Science journalists must constantly be prepared to jump from one branch of science to another, in ways that a more specified science education will not prepare them for. Weisman also said that not having specialised in a particular branch of science enabled him to cover science much more broadly. "I can do what very few scientists can do. I don't just write for one area of expertise. I've learned how to draw lots of connections in different fields of study which a lot of time scientists can't, because they don't have the time or the opportunity." (20)

Though at times I wished I had a deeper background in fisheries biology and oceanographic science, I can see where this lack of knowledge assisted me. If I had been trained solely as a fisheries expert, I would only be interested in looking at the fluctuations of hake and prawn stocks over the past ten years, and perhaps would have suffered from significant tunnel vision in seeing how these processes both affected, and were affected by, other phenomenon. Because I was not pigeon-holed by a particular expertise in a specific field, I was more open to going beyond these experts to take in the opinions of public policy officers, fisheries management experts, government bodies and officers, and fisheries economists to present a more nuanced portrait of the North Sea as it remains.

However, several science correspondents argued that a background in science would be beneficial for aspiring environmental reporters. Training in science would enable reporters to better understand the scientific process and the process of peer review, in which new theories are relentlessly checked and re-tested by colleagues to ensure its scientific validity. Having an understanding of the methodology, such as why certain variables are held as control patterns and others or not, can help journalists decipher the important parts of the story, and which is most important as a news story. All the science correspondents I talked to emphasized that at the very minimum, science journalists needed to have a sympathy and appreciation of science, and a willingness to go beyond the basic facts to decipher what the story is.

"I need to ask lots and lots of questions – much more than the average general news reporter," said Weisman. "My responsibility is to make sure that I get more than the general outline of the story." (21)

There are circumstances, however, where a journalist would need to have a much deeper base knowledge of a field than usual. Although investigative science pieces are rare, a journalist would need to have much more extensive training in the specialty area, said Simon Lock, a Teaching Fellow at University College London who specializes in science communications. (22) Likewise, in longer comment pieces, where in-depth knowledge of the context is critical, journalists need to have a better background.

Chapter Three – Scientific Developments and the News Cycle

Today's news cycle has been indelibly altered by the advent of the internet and multimedia. Now, instead of processing news around a once-daily news deadline, newspapers must compete with television and radio for up-to-date and urgent stories. This has led to an increased focus on finding breaking news in every sector of coverage, from features to news to science and health. However, it can be argued that science, and the nature of scientific progress, do not operate on a similar timescale. Progress is measured, deliberate, and done in short steps, which makes it difficult to fit comfortably within the breaking news framework. I asked journalists how the y handled these seemingly contradictory frameworks and if it affected the quality of reporting at all.

The first issue emanates from the working process of scientific institutions themselves. Every week, scientific journals like *The Lancet* and *Nature* publish reams of press releases, which flood newsrooms. The problem, said McGrath, is sorting through it. "The cyclical nature of science publications leads to a distortion of news – every week, they release a vast horde of embargoed stories, which does change the nature of the news cycle. The skill lies in identifying what the big stories are." (23) Also, when there is such a deluge of new items, how is the general science reporter supposed to understand which development is most newsworthy? The time needed to investigate each of these announcements to determine their newsworthiness is a dilemma that is faced by every working science reporter.

Perhaps as a result of this, it also happens that journalists will not cover a science story until well after it has been announced or unveiled. McGrath says that NASA, the American space agency, is notorious for "sending out press releases for stories that can't actually be covered for another six to eight months." (24)

There is a pressure to make science news fit this sense of what breaking news should be, said Black. "There are scientific discoveries that do have that Eureka! moment, but these are few and far between." He said that there was a tendency for reporters to dress up their stories as urgent or

breaking news, but said this was to be expected, as editors needed to fill their pages and websites with the most relevant news item on a continual basis. "In some situations," he said, "correspondents will exaggerate the importance of the story so that editors will give them the money to do the story." (25)

I found this phenomenon at work while I was interning at *The New Statesman*. I was intrigued by the appearance of squid off of the northern Scottish coast, which defied the idea that squid were a warm-water species. I wanted to do the story, but learned that squid had been appearing off the coast for the past three or four years. However, I plugged the story as urgent and new, by focusing on the effects it had on fishing methods and the market in general, arguing that the development of the squid fishery would be a pivotal method to take the pressure off of other over-fished stocks. *NS* was content with this line of reasoning, and ran the story, even if the story did not give an accurate sense of the timeline during which these squid began to appear.

Another reason why science news does not fit comfortably into the standard format of breaking news is that scientific research is an ongoing, continuous story marked by small advances and results which are gradual and part of a larger story. Two scientists, Weisman and Borenstein, have noticed this tendency in the field of environmental journalism. "I would describe my work as enterprise journalism," Borenstein said. "I don't cover breaking news – I go to stories that have been unfolding for a few years." (26) The challenge, he says, is going back and filling in the gaps, all the while finding a way to make the topic new and engaging for readers to maintain their interest.

Weisman said the real difficulty in covering these long-range stories is convincing an editor it's worthwhile. "It's usually a challenge to get the attention of an editor to a story that's more long-term, where understanding really takes place in stages," he said. He says it's especially tricky in environmental reporting, "because it is so depressing." Due to the nature of the story, it's necessary to explore more creative and intriguing angles to rouse the reader's attention, instead of turning him away by the talk of impending doom and destruction. (27)

There is also a real danger in "sexing-up" standard science news – by which is meant the slight advancement of research or a the opening of an intriguing new avenue to study – in the news media, which is always scurrying for readers and viewers. "News tends to work on the principle of major breakthroughs," said Shukman. In political coverage, he said, you'll see that Gordon Brown had a *terrible* day, not a slight setback or disappointment. The same principle holds true in environmental reporting. "We don't do justice to incremental science." (28)

Lock, however, believes that some of the fault in distorting science news lies at the feet of scientists who are too eager to be published. "It's dangerous ground," he said, "when you have things in the media before peer review." He said that this may also be the fault of press officers working in scientific institutions or research centres, who have not gotten the story right or are responding to pressures from higher-up to achieve a higher media profile for their institutions. "Either way, it's just the way things work – now we have to make it better," and ensure that journalists are only covering stories which are based on peer-reviewed statistics and conclusions. (29)

There is one positive aspect of science news that transcends the usual characteristics of a news story. Science news is not bound to a particular location, as a local news story often is. "In the World Service, it's very easy to do stories that are only accessible to people in a specific geographic area," said Mark Whitaker, a presenter of BBC One's *One Planet*. "But the great thing about science stories is that they have universal appeal." He went on to describe how discoveries in astronomy, or the unearthing of a new dinosaur fossil, appealed to everyone across the globe. While levels of cod and hake in the North Sea may seem like a very localized story, in fact it is part of a global trend of the depletion of fisheries, which has an immediate impact on everyone, even in land-locked regions. (30)

Chapter 4 – The Role of Advocacy in Environmental Reporting

Advocacy has always been a contentious issue within the field of environmental journalism, as opposed to other forms of science journalism. The seminal work of environmental reporting,

Rachel Carson's *Silent Spring*, sprang from an intense desire to expose the effect of pesticides on humans and animals in the Midwest. The Society of Environmental Journalists (SEJ) has long been divided by the debate over whether advocates of particular environmental issues can be considered as full members of SEJ or not:

> "However, after an early false start toward evaluating the objectivity of members' reporting, SEJ backed away from trying to police through membership decisions the question of advocacy journalism arising out of personal belief. As far as SEJ was concerned, its members were free to engage in -- or not engage in -- advocacy journalism. What they could NOT do was accept payment for advocacy from any but their media employers. SEJ resolved these issues during the years when it was defining itself as an organization. The way it resolved them suggests the waning credibility and utility among journalists of the ideal of objectivity considered as separation of work from personal beliefs." (31)

As it stands, the SEJ requires its Active Members to be engaged in full-time environmental reporting. Part-time reporters and those employed by political or environmental organizations are only eligible to be associate members of the society. The eligibility requirements do specify that you cannot be an active lobbyist for any cause to be considered a member in good standing.

But the issue of advocates practicing environmental journalism remains a heated one. Most of those who enter environmental journalism do so because they are sympathetic to the views of the green movement, and wish to highlight environmental degradation for a wider audience. I was drawn to cover the Common Fisheries Policy's affect on northern Scottish fisheries partly because of my environmental leanings and my previous political involvement in this topic. How then can we reconcile the idea that journalism, in its best form an objective and non-partisan avenue for understanding, is undertaken by individuals who are passionate about preserving the Earth?

Journalists were firmly against advocates acting as reporters. "If you're an advocate, you're not a journalist," said Borenstein. "The SPJ clearly states that." (32) He did not believe anyone who stood firmly in one camp on an environmental issue could do the journalist's job, to present arguments and counter-arguments and cover both sides fairly. However, he did note that there was a problem in defining what constituted an activist. He said those who were active members of a particular

environmental organization should not be acting as journalists, but as for personal beliefs and political leanings, it was more difficult to say.

Alan Weisman was a bit more measured. "I find that my level of credibility as a journalist is higher if I'm not seen to be associated with specific environmental groups. I don't draw on them as full sources." He warned that no matter how sympathetic a journalist may be to a particular environmental cause or group, he still must verify their information just as rigorously. Weisman said he recognized that passion for the environment could override a journalist's ability to be objective about competing claims. (33)

Journalists also pointed out that advocacy in environmental reporting was not helpful in clarifying the topic at hand. "Advocacy journalism gets in the way of understanding the issue," said Black. He pointed to his recent experience in covering a conference held by the International Whaling Commission. He said there were very subtle differences that did need to be negotiated between the member parties, but it certainly did not help clarify the issue when journalists resorted to blanket generalizations, such as damning the Japanese for their cruelty or taking a hard-nosed stance against the hunting of all whales. (34)

The problem is also in identifying the prejudices of sources, and evaluating their position to verify how objective the information they provide may be. "What I find is that it's very difficult to determine how true their information is, or how it's coloured by whatever organisation they're a part of and have sympathy for," said McGrath. He said that increasingly, climate scientists also doubled their efforts as activists across the spectrum of organizations, and so it could at times be questionable to accept their arguments as objective. (35)

I found myself constantly having to evaluate the claims of all the activists and scientists I interviewed in the course of my research. I was most surprised by the presence of bias (or perceived bias, from other groups) in scientific organizations. I had been prepared to accept the findings of the International Council for the Exploration of the Sea (ICES) at face value, but was forced to rethink

this blind acceptance after a meeting with the Executive Director of the North Sea Regional Advisory Council, who criticized the organization for its incendiary language and unrealistic projections of fisheries depletion. Even more confusing was my discussion with scientists from the Centre for the Environment, Fisheries and Aquaculture Science (CEFAS), which had radically different projections for the recovery of fish populations than CEFAS did, but used the same system for determining the present number of fish. In this case, in addition to talking to experts at the Marine Conservation Society and the Marine Resources & Fisheries Consultants, I was able to understand what the actual findings were, and realize that CEFAS was always going to be more optimistic in its projections, as it is a government body connected to DEFRA.

Determining the biases of sources can be especially tricky in terms of breaking news or inside developments presented by one particular organisation. McGrath relates a story from earlier this year of how a colleague was roused in the middle of a night by an environmental group, which claimed to have insider information on a measure proposed at the Bali Conference. He said his colleague later reported it, without acknowledging the source or any potential biases that it may have. He was concerned that this was not raised in the report, as it impeded viewers' ability to gauge the validity of the information for themselves, as they were not provided with all the facts. He said that it was not difficult to be "led by the nose" by certain environmental groups, and a journalist had to be ever-vigilant in his investigation to avoid being blindsided by one particular lobbying party. (36)

Conclusion

There is a perception that covering science is much simpler than covering crime or political news, because there is less room for interpretation and debate. However, I found environmental reporting to be no less dependent on checking the validity of opposing party's claims than reporting on any other topic. In fact, a common sentiment stressed by all the journalists I interviewed was that environmental and science journalism required *more* vigilance, fact-checking, and clarification of claims than most forms of journalism. I found I had to read scientific reports several times over, and speak to the scientists who published them several times, before I felt comfortable writing the story.

There is also a tendency to assume that scientific findings are the epitome of an objective conclusion – meaning, that they are beyond the individual prejudices and biases held by individuals. I found this not to be the case in the stories I reported, as each group had a reason to come to the conclusions that they did and publicize them. With ICES, it was the desire to stop dangerous fishing in all European waters; with the North Sea RAC, it was to represent fishermen's interests and ensure their survival as a functioning body of the EU. My scepticism to the claims of the North Sea RAC, which were clearly conflicted by their own statements and by evidence from other organisations, enabled me to ask the hard questions of the Executive Director. However, being sympathetic to the views of ICES in that I believe fishing should be sharply curtailed in all areas where fish populations have reached a critical biomass, I had the most difficulty in researching their prejudices and finding a way of working it into my articles, without compromising the validity of their findings.

Finally, I felt the greatest difficulty in reporting on the fisheries was in resisting the temptation to focus too much on the science, and not enough on its ramifications for local people. There is a tendency, after consuming so many scientific reports, graphs, charts, and predictions, to write what would otherwise be considered a scientific summary in lay terms, which may helpful for those already interested in the field to read, but will not attract readers who have a more general interest. Alan Weisman stressed many times that the principle job of a science reporter was to make science news accessible to the masses, and make it engaging and thought-provoking. Environmental writers, perhaps more than other science journalists, have that much more of a duty to their readers, as the earth continues to suffer from excess exploitation of natural resources and destructive industrial practices. Therefore, the environmental journalist must take the duty of informing the general public and enabling them to understand the forces at work seriously.

Word Count: 6087

End Notes

1. Environmentalism.com
2. "SEJ's Vision and mission," Society of Environmental Journalists, 24 May 2008. http://www.sej.org/about/index1.htm
3. Chris Mooney, Columbia Journalism Review, "Blinded by Science: How 'Balanced' Coverage Lets the Scientific Fringe Hijack Reality," Nov/Dec 2004. http://cjrarchives.org/issues/2004/6/mooney-science.asp
4. Telephone interview with David Shukman, BBC environment correspondent for 23 years, Wednesday September 3 2008.
5. "The Guardian's Editorial Code," *The Guardian*, 31 January 2004, http://www.guardian.co.uk/information/theguardian/story/0,,906788,00.html
6. Telephone interview with Matt McGrath, BBC climate reporter, Friday September 5 2008.
7. Telephone interview with Alan Weisman. Weisman has been an environmental reporter for 30 years, and is the author of the international bestseller *The World Without Us*. Wednesday September 3 2008.
8. Telephone interview with Alan Weisman, op.cit.
9. Chris Mooney, op. cit.
10. Telephone interview with Richard Black, Chief Environment Reporter at the BBC. Thursday September 4 2008.
11. Telephone interview with Seth Borenstein, who wrote for Knight-Ridder newspapers for two years before moving to the Associated Press, where has worked as a hurricane reporter for 18 years. Wednesday September 3 2008.
12. Telephone interview with Matt McGrath, op. cit.
13. Telephone interview with Richard Black, op. cit.
14. Telephone interview with David Shukman, op. cit.
15. Telephone interview with Paul Rincon, Senior Broadcast Science Journalist at BBC News online. Wednesday, September 3 2008.
16. Telephone interview with David Shukman, op. cit.
17. Telephone interview with Matt McGrath, op. cit.
18. Telephone interview with Seth Borenstein, op. cit.
19. Telephone interview with Paul Rincon, op. cit.
20. Telephone interview with Alan Weisman, op. cit.
21. Telephone interview with Alan Weisman, ibid.
22. Telephone interview with Simon Lock, Teaching Fellow in Science and Technology Studies at University College London, Friday September 5 2008.
23. Telephone interview with Matt McGrath, op. cit.
24. Telephone interview with Matt McGrath, ibid.
25. Telephone interview with Richard Black, op. cit.
26. Telephone interview with Seth Borenstein, op. cit.
27. Telephone interview with Alan Weisman, op. cit.
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