IRD is used to support the assertion (fig. 5.16) that in both the early (9000–5000 years BP) and the later Holocene (more recently than 4000 years BP) the flow in the Norwegian Sea was dominated by a cold polar current coming out of the Barents Sea and running down the coast of Norway. Such a polar current would have administered a massive climatic shock to Norway, which is not supported by any other data. In addition, the simple dynamics of currents on a rotating Earth shows that as a boundary current this is flowing the wrong way and would not be stable. A more considered view would have involved thinking about the sort of year-to-year variability in ice cover that we get today due to anomalous wind action. For instance, in May 1881, sea ice (originating through Fram Strait) spread over almost the whole of the Norwegian Sea to near the Norwegian coast, due to a freakish wind pattern at a critical time of year (and not occurring in 1880 or 1882). This overstretched ice melted *in situ* and no doubt dropped its burden of sediment all over the Norwegian Sea. A succession of such sporadic episodes over a long period could be misinterpreted as indicating a current coming from a different direction from normal. This illustrates the danger of interpreting an entire pattern of ocean circulation on the basis of one kind of evidence only.

The only part of the book that resembles the title is chapter 7, entitled 'Sea ice motion: the physical foundation and implications,' which was written for the book by a 'guest author,' Peter Lemke, of the Alfred Wegener Institute for Polar and Marine Research, Bremerhaven. Lemke is one of the world's leading modellers of the ice–ocean system. His chapter describes sea-ice modelling methods and shows some drift observations, drawing attention to the importance of wind forcing, although the figure (7.5) meant to show the overall mean motion pattern is missing from the book. He then describes a numerical experiment in which parcels of sea ice are started in motion from different coastal regions north of Siberia, and an ice–ocean model used to compute where the parcels move and where they dump their sediment (dumping occurs when the model indicates melt taking place). This experiment could be of the greatest importance in connecting the empirical observations of Bischof with a well-founded model treatment, but, infuriatingly, the publishers have also omitted the figure that shows the result of the experiment (fig. 7.9) from the book.

A potentially useful section of 20 colour plates showing icebergs and sea ice loaded with sediments is spoiled by the absence of individual descriptions of what each plate is meant to show, as well as any scaling. Although we can see which pictures show icebergs seen at a distance, the close-ups could be icebergs or sea ice and could be on any scale. This is important, because in his conclusions Bischof maintains that sea-ice sediments are fine-grained, while those picked up by icebergs are larger, up to the size of rocks. I have personally seen large stones among the sediments on top of sea ice. Although the conventional source of sediment is believed to be fine-grained material suspended by storm action in Siberian shelf seas, which is then incorporated in newly forming ice, another source is the occasional spring outbreak of water from Siberian rivers, which flows out over the surface of coastal fast ice, ice that later breaks up and joins the moving pack along with its burden of heavier riverborne sediment.

There is no denying Bischof's enthusiasm for this field, nor his high level of knowledge and experience on the topic of ice-rafted sedimentation. There is no doubt that this is an important new technique through which we really can derive fresh knowledge of the past distributions of sea ice and icebergs from particular source regions. I just wish that he had called his book 'Ice-rafted debris' to avoid giving the false impression that this is a general textbook on sea ice, and had also been less keen on making sweeping assertions based on IRD evidence alone. (Peter Wadhams, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

CHANGING TRACKS: PREDATORS AND POLITICS IN MT McKINLEY NATIONAL PARK. Timothy Rawson. 2001. Fairbanks: University of Alaska Press. xvi + 326 p, illustrated, soft cover. ISBN 1-889963-17-8. $US24.95.

There are some topics that elicit strong opinions from people. Try telling some folks that Scott was a flawless explorer, that Madonna has had more musical impact than The Beatles, or that Roger Moore is the best James Bond. You're bound to get a reaction, because these are topics about which people have definite opinions. The same can be said for wolves. To most people, they fall somewhere near the extremes of the continuum that runs from vicious, bloodthirsty baby-eating destroyers of Bambi on one end, to spiritual, mystical conduit to a higher understanding of Gaia on the other. People have feelings about wolves, even if they don't have contact with them. In *Changing tracks: predators and politics in Mt McKinley National Park*, Timothy Rawson has deftly, and in a balanced fashion, presented the history of a political conflict that involves the passionate feelings of several different wolf perspectives.

The conflict that he has so wonderfully chronicled is the wolf–sheep controversy, a conflict the roots of which go back to the dawn of the domestication of animals. When people started keeping ungulates as possessions and ready food sources, the wolf became a competitor and the 'bad guy.' In these earliest days, the conflict wasn't over opposing opinions, because back then everybody was against the wolf. However, as civilisation evolved and human populations began to shift to cities, the wolf began to attract some fans, until today, when wolf-love is at an all-time high. But unlike many contentious issues, the wolf–ungulate controversy is a dispute that cuts across most cultures and has carried on through several millennia. At its heart is one of the oldest resource-management conflicts in human history, and with extreme thoroughness and a fluid style, Rawson walks us through the whole saga.

The book looks at how opposing factions fought for

their various ideals in Alaska's Mt McKinley National Park. The park was established in 1917 (and later enlarged and renamed Denali National Park and Preserve in 1980) to protect the prodigious wildlife populations that roamed along those northern flanks of the Alaska Range. The controversy really kicked in when the US National Park Service and various special-interest groups had differing opinions on the value of various species. Dall sheep, the all-white cousin to the bighorn of the Rocky Mountains, were plentiful and readily viewed in the park, and gentlemen's hunting organisations — like the Boone & Crockett Club and the Camp Fire Club, whose lobbying for the creation of the park resulted in rather proprietorial feelings about its management — felt strongly that the park should be managed to maximise sheep populations. They strongly advocated the killing of wolves to reduce predation, and in this stance they very much represented the 'status quo' that wolves are bad. But the park had been created at a time when scientists were making big strides in the field of ecology and the way that animals were interrelated was just beginning to be understood. Predator–prey relationships were being researched and new light was being shed on the role of predators in healthy ecosystems. The US National Park Service took the unprecedented stance that wolves were animals of value, and the stage was set for a decades-long fight over management ideals. Added to the mix was an attempt to base decisions on scientific findings instead of anecdote and emotion, and the Park Service's internal wrangling over what, exactly, was the role of national parks.

Rawson takes a narrative approach that allows the controversy to unfold like a good story, and he has made it all the more engaging by filling in the details of the personalities involved, and the concurrent events that helped shape the thinking of the various parties. This 'fleshing out' of the characters is what really brings the story to life and is possible because of the admirable breadth and depth of research done by the author. In this way, the book goes beyond simply giving a history of one wildlife management issue; it is a history of the development of ecological study and the rise of the conservation and preservation movements. It also nicely fits the conflict into the pot in which it stewed: a rapidly developing Alaska. As Alaska attracted more people and its resource management issues became more complex, the Alaskan abhorrence of outside intervention in the affairs of the territory/state remained constant. Rawson has a good feel for this local attitude and uses it to explain fully the many peripheral issues that impacted on wolf management.

One word that sums up the work is 'thorough.' The author has gathered material from a vast array of sources, including unpublished letters and memoranda, books, scientific papers, newspapers, and interviews. I particularly enjoyed the detailed endnotes that accompany each chapter and that provide some fascinating minutiae of the period and events.

Changing tracks is more than just a history of a political conflict; it is the biography of one. Rawson has told the story in lush detail and let the personalities shine through so that the wildlife-management issue at the heart of the story almost becomes a living entity. Seldom have politics and management policy been so interesting. (Peter W. Carey, 21 Radbrook Street, Christchurch 4, New Zealand.)

THE ICE CHILD. Elizabeth McGregor. 2001. London, New York, Toronto, Sydney Auckland: Bantam Press. 368 p, hard cover. £9.99.

This is an ambitious novel. It attempts to weave together several stories: a well-travelled female polar bear, with a sick cub, whose reported bearish thoughts are remarkably articulate; the story (highly conjectural, but nothing wrong with that) of the last months of the Franklin expedition; and, foreground, a complicated love story set partly in Cambridge, where a recognisable Scott Polar Research Institute makes a guest appearance. And it is 'about' growing up and finding oneself, and mothers and sons (and fathers).

A journalist, Jo Harper, is asked to investigate the disappearance in Greenland of a marine archaeologist, Douglas Marshall. Marshall is obsessed with the fate of Franklin, and escapes from an appalling wife (not entirely undeserved) to look for him. Marshall's son John has a comparable obsession with searching for his lost relationship with his father. Harper catches up with Marshall, falls in love with him, and bears his child: but he is run over by a car while quarrelling with his son on the day when he was supposed to marry her. The baby develops a rare disease, aplastic anaemia, for which a bone marrow transplant from a genetic match is the only hope. But the best hope, John, has disappeared, eventually making his way to Canada to work with a man who specialises in photographing polar bears, including the one whose travails we know. In the nick of time, after a chase across continents, John is found, at the end of his strength, having found a relic of the Franklin expedition for which his lost father sought so hard and long, and the transplant is successful. The polar bear's sick cub survives to adulthood too. This bald summary does not do justice to the other patterns and parallel motifs that structure the novel.

The novel is, frankly, a tear-jerker, and the success of a tear-jerker depends entirely on how well it is written. Here, despite the medical and historical research the author has clearly done, there are some considerable flaws. The dialogue is weak, and the author seems to think the vigour of the adolescent idiolect adequately conveyed simply by expletive. Characters are not differentiated in any serious way by their language, and we depend on the prompting of an omniscient narrator to know how to take them. They do not have much depth. But the pace is fast, the echoes do work, if a little heavy-handedly, and many will enjoy the story. It might even make a film.

But for readers of *Polar Record* and anybody with the remotest interest in the matter, the show is stolen by the