then adult populations will increase and it is quite feasible that the spread of exotic forests will result in the return of banded kokopu and an increase in whitebait.

However, one problem with this promising scenario is the sensitivity of banded kokopu juveniles to turbidity. Laboratory tank studies carried out by NIWA have indicated that it is the most sensitive species. Migrant juveniles avoid suspended sediment concentrations over 120 mg l^{-1} (turbidities of 20 Nephelometric Turbidity Units or NTU) and turbidity levels over 20 NTU reduce their feeding. Such levels are not particularly high and fall well short of what most people would call slightly discoloured water. Nevertheless, such levels occur in a number of New Zealand rivers and may be inhibiting the upstream movement of banded kokopu whitebait.

Proof of this was recently obtained by NIWA scientists, who found that rivers that are turbid during the fish migration season (August –December) contain fewer adult banded kokopu than clear rivers. As the density of adults in pristine habitat was low in the turbid rivers, it appears that the turbidity in lower reaches inhibits the upstream migrations of juveniles so that fewer migrants reach adult habitats.

If plantation forestry is to play a role in helping to restore whitebait fisheries, then forest managers will need to be careful to minimise turbidity levels in streams during the fish migration season. Carter Holt Harvey Forests has helped fund the FRST research into the effects of turbidity and land use on banded kokopu. The Company takes a pro-active role in environmental management and realises that more needs to be known about habitat quality in streams and the positive and negative effects that forestry practices might have on native fish such as the banded kokopu.

Road construction and runoff from recently harvested areas can contribute to turbidity problems in streams unless handled carefully, and many forest managers already work hard to prevent this from occurring. Riparian strips may help reduce turbid runoff, and FRST research is underway to determine the effects of riparian strips on stream ecosystems. However, these efforts will all be in vain if downstream sources of turbidity are not reduced. In this respect, the farming industry will need to be encouraged to do its share, because much turbidity in the lower reaches of rivers is likely to be due to soil erosion from pasture.

As turbidity levels will need to be low throughout the entire banded kokopu migration pathway (i.e. from river mouth to headwater stream), FRST funded research is now being completed to determine the turbidity level which inhibits the upstream migration rate of juvenile banded kokopu in the wild. The results will then be presented to industry and regulatory agencies to determine how best to implement the findings on a river-wide basis.

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Forestry Books

The following is a list of books newly available or becoming available.

Forestry, People and Places: Selected Writing from Five Decades. By Dennis Richardson.
Business Media Services Ltd
Professor Richardson has collected his many and varied writings in this special collection. The work includes essays, papers and addresses prepared during a career extending from the early days of modern forestry practice to the jungle tribes of Irian Jaya, the islands of the Pacific, and the highways and by-ways of European forestry. All works written in Professor Richard's usual insightful and readable style.
Price: $39.95
Available: Summer 2000.
Business Media Services Ltd, PO Box 6215, Whakarewarewa, Rotorua, New Zealand; Tel: (07) 349 4107; Fax: (07) 349 4157; email: bms@wave.co.nz

The Business of Sustainable Forestry - Strategies for an Industry in Transition
By Michael B. Jenkins and Emily T. Smith; John D. and Catherine T. MacArthur Foundation
Publisher: Island Press
A series of 21 case studies of industry leaders carried out by the Sustainable Forestry Working Group is integrated and analysed. The motivation of the pioneering firms studied are as varied as their characteristics, yet each has made significant progress.
Price: US$35.00
Available: Island Press
www.islandpress.org/

Atlas of Endemics of the Western Ghats (India) : Distribution of Tree Species in the Evergreen and Semi-evergreen Forests. B.R. Ramesh and J.P. Pascal. 1997, 403 p., maps, plates, CD Rom listing images, maps, US$70 (inclusive of CD ROM) (net. Inclusive of registered airmail postage and packing).
http://www.vedamsbooks.com
Available from the UNFAO Regional Office for Asia and the Pacific, Bangkok, Thailand:

Code of Practice for Forest Harvesting in Asia Pacific. 1999, 133 pages. An excellent reference, broad in scope yet sufficiently detailed with respect to field applications that can be applied throughout most of the region to enhance forest management.
Asia-Pacific Forestry Towards 2010. 242 pages. The report of the Asia-Pacific Forestry Sector Outlook Study. The study considers the status, trends and prospects for the forestry sector to 2010.
Both reports available from Patrick Durst, Regional Forestry Officer, FAO Regional Office for Asia and the Pacific. Phone: (66-2) 281 7844; Fax: (66-2) 280 0445; email: patrick.durst@fao.org