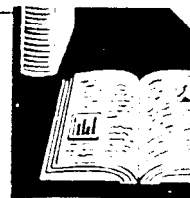



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**N I C H E**

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Introduction

The topic of this afternoon's session is "preparing for change as logging moves into the 21<sup>st</sup> century." While much of the material from the various speakers is similar, I want to take a different approach, a different angle, and I hope one that will stimulate some new ideas in your minds. In this presentation I will take some concepts from ecological theory and use them as we discuss strategies for surviving and adapting in the future.

Skidding with Dinosaurs

I was asked to talk about Niche Logging-specialty operations-so I went to Timber Harvesting magazine looking for articles about dinosaur loggers. Guess what? There wasn't a single article. All the dinosaur loggers are gone, out of business, extinct! What ever happened to the dinosaurs anyway?

One current theory holds that a relatively rapid change occurred in the environment-maybe an asteroid slammed into the earth. One day the dinosaurs were peacefully munching away, successful and happy, the next day they were struggling to survive in a changed world. Many of them couldn't fit into the new conditions, and they were unable to adapt fast enough. In some cases the new conditions may have been directly fatal, in other cases the new conditions may have favored other competitors, and the dinosaurs slowly starved to death.

It is not hard to draw parallels to our topic this afternoon. Logging is facing a world of change. Forces such as the environmental movement, global market shifts, demographic shifts in labor and society, and industrial expansion are driving change. These changes can be rapid. When a country on the other side of the globe announces a law banning the export of hardwood fiber, markets shift overnight. When a country in Europe announces certification requirements to put a green sticker on wood products, it forces change all the way back to the woods.

In some cases these changes can be directly "fatal" to loggers. A mill shutdown or a wilderness area designation may leave no room for continued logging. In other cases, such as new environmental or transportation regulations, the change adds cost and may favor competitive products (concrete, steel) or competitive producers (imported fiber).

Dinosaurs were a product of the past. Their form and function were a result of the world they lived in. When things changed, they didn't fit in their niche anymore. Let's get a definition. A niche is a "suitable situation or surroundings which support the successful functioning of the

<sup>1</sup> Presented at the American Pulpwood Association Southeastern Technical Division's 1996 fall meeting in Greenville, South Carolina, October 17, 1996.

organism.” The niche may be defined by: (1) physical elements such as place, (2) environmental factors such as temperature or light requirements, and (3) **community** factors, which are the other organisms which interact in the niche.

Let's put this in terms of logging. A logger's niche can be defined by:

- Terrain-what kind of ground do you work on? Mountains, swamps, flats? Sandy?
- Climate-what kind of weather do you work in? Hot, cold, wet, snowy?
- Location-where do you draw your limits on a map? How far do you move?
- Timber and product-do you work hardwoods, pines, sawlogs, or pulpwood?
- Local government--county and state regulations may define some of your limits.
- Federal government-regulations for OSHA, EPA, IRS define what you can do.
- Landowners-what do your local landowners want from a logger?
- Mills-define limits through pricing and through policies such as gate hours.

Your current form (equipment mix, crew size, transport) is an expression of the limits of your niche defined by factors like those listed above. You can see this by filling in “because” statements. “I use wide-tired skidders ~~because landowners want less soil disturbance.~~” “I use manual chain saw delimiting because we work a lot in hardwoods.” “I don't spend much time in forestry activism because my community is very supportive of the forest industry.” “I don't work more than 100 miles from my home because transportation and crew travel costs make me non-competitive at that distance.”

It is critical that you understand your niche as completely as possible. What are the key factors that limit your operations? What aspects of your operations may be a result of past constraints that are no longer there or are less important today? What factors could shut you down if they changed? Try to put approximate numbers on your boundaries. How much rain will shut you down and why? How far will you travel? How small a diameter tree can you efficiently process? How small of a tract can you afford to move onto? As a logger you are competing to provide fiber to the wood-using industry. Your survival depends on understanding your niche and the nature of the competition.

### Strategies for Survival

Nature has a variety of strategies for survival and successful competition. One strategy is to specialize. By specializing, focusing on a very small niche, you can avoid competition. As a near-monopoly, the seller is free to set the price of the service at a level which yields the most profit. While these are definite advantages, there are some disadvantages. The opportunities for finding and filling a specialized niche in logging are, by definition, limited. If you are successful in your niche, it will attract others to join you. Finally, specialization generally requires a unique set of equipment, methods, or personal values. Specialization is also a dangerous strategy. By being highly adapted and dependent on a small market, you are vulnerable to any changes that come along. Many of the threatened or endangered wildlife species are specialists--uniquely adapted to a limited habitat, they decline when the niche is modified.

Consider some examples of **specialized** logging. Urban logging is a niche where few loggers compete. Trees in the urban landscape may have clear boles and relatively high grade because of pruning. Tree removal is valued for hazard reduction or landscaping value, and thus **stumpage** prices may be low. However, extracting wood products will require specialized equipment such as boom trucks and climbing gear. Conventional logging systems cannot compete for this resource.

Underwater logging is another example of very specialized operations. A number of contractors are finding value in recovering “sinkers” **from** rivers. Equipment consists of barges, diving gear, and winches or cranes to raise the logs from the water. The product is unique and highly valued due to ring density and size; however, it is a limited resource. Once the rivers are picked clean, this niche will disappear.

Ecological logging is another specialty niche. This niche focuses on a light-on-the-land approach using selective logging methods coupled with effort to minimize visual impacts. The logging operation is presented first as a **silvicultural** treatment and second as an income generator. An example of this niche is found in the June 1996 issue of **Timber Harvesting**. Tallman Tree Farm was a two-man operation emphasizing **woodlot** management. Daily production averaged nine cords of **sawlogs** and firewood. A landowner base of about 2,000 acres provides a steady source of work.

Animal logging is another specialty niche. A recent survey in Alabama identified 50 animal logging contractors. These operations are regarded as low-impact systems which meet the management objectives of many NIPF landowners and work in sensitive areas such as recreation sites. Animal logging requires specialized equipment--horses, tack, transport. It also requires a special set of skills, training, and experience.

Specialized logging operations fit unique situations. They are only competitive in limited areas, but in these niches they may be the only system which can meet the management or product objectives. The continued viability of a specialized logging operation often depends on one critical factor. Underwater logging depends on the supply of material; ecological logging depends on a client base which values stand management over immediate return. What does the future hold? These niches may expand or disappear, and the specialty logger must be ready to adapt.

Most of you aren't going to specialize in a small niche. You will stay in the larger market that provides the bulk of the fiber. This larger niche of logging operations is defined by delivery schedules, higher production levels, larger blocks, and excess logging capacity. One strategy for survival in this larger niche is to be more efficient than your competitors. Consider this: If you went head-to-head against another contractor that uses the same basic equipment mix in similar timber, who would win? Efficiency provides more return during good times and a larger cushion during bad times. Efficiency can be improved by customizing equipment to improve productivity or reduce operating expense. However, efficiency can be pursued in other areas as well. Incentive payment plans, training, and cross-training can increase output. Financial systems can make your capital work harder for you. Planning can reduce fixed costs such as moving, roadbuilding, and landing construction.

An example of fine-tuning is described in the March 1996 issue of Timber Harvesting. Deck Trevitt customized his hauling equipment by eliminating one fuel tank, removing trailer landing gears, replacing steel with aluminum headache racks, and using aluminum wheels on steering axles. This fine-tuning put about 2,500 pounds more payload on each trip-a significant competitive advantage.

Another strategy for surviving is adaptation. In nature an adaptation is a special feature exhibited by a species which gives it a unique advantage in its niche. Adaptations are thought to occur through a slow process of responding to changes in the environment. As a food source changes, for example, a species may develop new features which adapt it to new food sources. The main idea is that adaptation is a response to changes in the niche.

Adaptation is probably the most common strategy used by loggers to survive. For example, many loggers have responded to higher worker's **comp** rates by adding pull-through delimiters. Many loggers responded to restrictions on sheared wood by replacing shears with sawheads. Some loggers are responding to the availability of plantation wood by developing thinning crews. Some loggers respond to tighter markets by reducing crews. The October 1996 issue of Timber Harvesting describes how M.A. **Rigoni** responded to a need for higher production by adding lighting and going to two **shifts**.

Adaptation is a reactive approach to competition, The change has already occurred, and you are addressing the question, "How do I . . .?" Generally, reactive adaptation occurs on someone else's timeframe, not yours. You may lose money by trading in equipment or purchasing new equipment. All of your competitors are facing the same obvious pressure to change, and success is determined by who figures out the best adaptation and gets it working the fastest. Adaptation tends to be a conservative, evolutionary approach. Changes fit in with existing support systems rather than completely break with conventional models.

A final approach to survival in nature is mutation. Mutations are radical changes which occur somewhat randomly. Most mutations don't provide any competitive advantage and disappear from the population. Some mutations, however, provide a new advantage or provide a lead on meeting changes in the environment. Mutation is a proactive approach to survival. These are trial changes, "What if we ...?"

For example, the September 1996 issue of Timber Harvesting describes an operation which is debarking tree-length material in the woods and trucking the bare stems. The logger can deliver more usable fiber per load, the mill eliminates debarking and disposal costs, and the landowner gains by keeping residues in the woods. This is a trial change which will help to determine whether this "mutation" truly offers a competitive edge.

Proactive changes present the potential for truly radical breakthroughs. It can be costly to experiment, and many attempts may prove to have no merit. Because of the costs and risks, proactive trials are often sponsored through the co-operation of mills, loggers, and equipment manufacturers. There are also advantages to proactive change. By leading and anticipating changes in your niche, you may be able to select directions which are more favorable to you. Proactive change occurs on your timeframe. You can decide when is the optimum time to make a switch to a new way of doing things. This may occur when major equipment is due for

replacement, when delivery contracts expire, or when labor turnover presents an opportunity to expand or contract.

### Conclusions

Everybody is a niche logger. Everyone must compete to **survive**. It is critical that you spend some time developing a good understanding of your niche. What factors limit or constrain you? What factors may affect you if they change? Because change is coming. You need to monitor changes in order to anticipate your response. Knowing that you will have to adapt to survive, try to be proactive. Experiment, watch for your opportunities to make shifts on your terms. Darwin developed the concept of “survival of the fittest.” There will be logging in the 21<sup>st</sup> century. Future loggers will have done three things: (1) fit within the constraints of the niche, (2) expanded to take advantage of all the opportunities in the niche, and (3) adapted through a process of continuous improvement.