Prof hears songs by romantic crickets

By KERRY TEMPLE

Each, a biology professor at the University of Notre Dame, can tell what species he hears by the song being strummed on the cricket's wings. He can tell if it is the male's anglicic mating song or the hissing fight song, at an up-tempo number, played when rivals court the same female.

As a result of a new technique which took each two years to develop, the biologist may know as much as any scientist in the world about a cricket's auditory processes.

Working at Notre Dame and the Max Planck Institute for Behavioral Physiology in Seewiesen, Germany, each is the first to insert an electrode into a cricket's auditory nerve to study what happens when a male hears a male's serenade.

His findings, reported in the Journal of Comparative Physiology, help tell man how the nervous system controls an organism's behavior.

As crickets have incredibly poor eyesight, the male and female must depend upon the love song simply to find each other in order to do their part in propagating the species.

The male initiates the romance by rubbing one wing upon the other. Some are left-handed, others right-handed, and, as in the human population, righties predominate. If a solo becomes a duet, the two males will change their tune, strumming passionately for the maiden's hand.

When hundreds of cricket species abound, the female will react only when she hears the song unique to her species. Then she drops everything and moves by jump and crawl toward the sexual tones in Notre Dame biology's facility, where a computer replicates the crickets' songs. (Joan the loo-eared females can be seen flipping down the corridors toward Dewd's lab when her computer plays the right tune.)

To find out what takes place between the transmission and the single-minded response, each took a look at the cricket's car and the nerves which carry the auditory messages to the brain. Doing that, however, required exploring a highly sophisticated system this as a single human hair.

The cricket's two ears are located in each of the bug's front legs. In each ear are 60 to 70 neurons, or nerve cells, which record the sounds, translate them into coded

WSND selects new staff

The WSND AM/FM Executive Board has elected department heads for the 1981-1982 academic year.

Coordinating the new executive staff will be station manager Thomas Nesster and station manager Kenneth Allen, who will take the AM program director's job. Lechu will move into the news director's position, and Rowland will take over as the production director.

Returning to the board are chief engineer John Garrett, FM program director Kris Allen, and Sports Director Bill Dempsey. The new executive board will formally initiate its administration on Friday, March 11, 1981.

Commenting on the election, current station manager Kevin Geiser emphasized the value of having those department heads, but noted that "the fresh perspective and innovative ideas" that come with new members provide the "power needed to drive such a large and creative organization."
The Soviet Union and Poland announced yesterday that joint Warsaw Pact military exercises will begin in Poland later this month. The announcement followed a one-hour strike in Lodz, the first major work stoppage in more than a month in this Communist nation beset by economic and labor troubles. The Polish news agency PAP said the exercises would take place in Poland, East Germany, Czechoslovakia and the Soviet Union in the latter half of March. Soviets were expected to exceed those shown in corpse reports at this time of the year, but U.S. State Department officials last week expressed concern about reports of such maneuvers. A threat of Soviet military involvement in Poland, beyond the Soviet troops already there, would overshadow the Polish crisis of late last year. The announcement said the aim of the exercises was to "coordinate and improve cooperation of senior staffs of fraternal armies and navies during joint military operations." The exercises also were announced in Moscow. — AP

The cost of mailing a first-class letter will go from 15 cents to 16 cents on March 22, the Postal Service said yesterday. The Board of Governors of the service, which had requested a 20-cent rate, told the Postal Rate Commission, a separate agency that on Feb. 19 accepted the 16-cent rate instead. "To achieve a lower stamp, price adjustment has chosen to ignore more than $1 billion in revenue needs that will have to be collected in the near future," the governors said in a statement released without elaboration. The governors said they would ask the rate commission to reconsider its decision. If that decision stands, the statement said, the Postal Service will soon ask for another rate hike. — AP

Jereed by Canadian demonstrators, President Reagan returned to Washington yesterday after a whirlwind trip to Chicago, where he confronted a group of anti-nuclear marchers with the threat of arrest. The marchers had blocked his path to a convention center where he was to address the Illinois chapter of the United Auto Workers. The marchers, who had been blocked from meeting with the president for much of the day, were forced to endure a newsworthy scene: President Reagan's security guards carrying out the arrest warrants. A Canadian official said the president had been told that the guards would carry out the arrests. The guards arrested 16 people and were expected to announce charges later yesterday. They included five French citizens, five Americans, three Canadians, one from Belgium and one from South Africa. — AP

Convicted murderer James Brewer, 24, of Gary, Ind., will die in Indiana's electric chair April 9 in Crown Point, Ind., under an order issued yesterday by a Lake Superior Court judge. The date of execution was announced less than four hours after former President Ronald Reagan, 24, died in Indiana's electric chair, the first execution in the state in 20 years. Judge did not file the court's death sentence and was executed shortly after midnight Monday. Judge James Clement announced the date of April 9 for Brewer's execution after the Indiana Supreme Court acted Friday to uphold Brewer's murder conviction and death penalty. He was convicted in 1978 of the death of Steven Skupan, 29, of Gary, in December, 1977. The charges said Skupan was kidnapped in Brewer was breaking into his home. Kenneth Brooks, 24, also of Gary, entered a guilty plea in connection with that murder and was sentenced to 60 years in prison. — AP

Notre Dame received $3,571,811 in grants and contracts in the month of January for support of new and continuing research projects, educational programs and service projects. The amount represents 4.37% of grants and contracts from the U.S. Dept. of Energy for continued research by the Radiation Laboratory on the effects of radiation on matter under the direction of Dr. Robert H. Schmitt, chairman of physics and chairman of the Laboratory; $131,653 from the National Institutes of Health for studies on the intermediary metabolism of cholesterol, supervised by Dr. Howard J. Saz, professor of biochemistry; $1,113,063 from the National Institutes of Health for research on parasitic helminths in vitro, coordinated by Dr. Paul W. Weir, professor of parasitology; $77,017 from the U.S. Air Force for drug procedures for three-dimensional tunnel wind contractions, directed by Dr. Stephen H. Hiltz, assistant professor of mechanical and aeronautical engineering; and $63,324 from the National Institutes of Health for research on the synthesis of anticancer germacranolide sesquiterpenes, directed by Dr. Conrad J. Emar, assistant professor of Chemistry. — The Observer

Mostly cloudy and cool today with a few snow flurries possible in the morning. Highs in the low 40s. Partly cloudy and cool tonight. Lows in the upper 20s to near 30. Becoming cloudy tomorrow with highs in the mid 40s. — AP
 sciences can chart the nerve system while studying its function. They must work quickly, however, as in each cricket the nerve dies within five minutes of the electrode’s im- plantation. Each such death of the cricket’s ear can only register other cricket sounds and then only for mating purposes. One measure of sound is in oscillations per second; frequency or pitch, recorded as kilohertz. A cricket’s ear, each discovered, is extremely sensitive to different pitches. They may hear very soft sounds at a certain pitch and miss louder sounds at other pitches. In other words, a cricket may hear a love song almost imperceptible to humans and not hear a car horn or telephone ring. Fortunately, the pitch to which the female ear is most sensitive and the pitch of the male’s song coincide. The mating sound, depending upon the species, is about 16 kilohertz while the fighting song is about 16 kilohertz.

While this system is obviously more complex in humans, Esch’s work and new technique represent a big step in understanding the ear, nerve processes, and how sound directly affects behavior. Even the human species is affected biologically by certain sounds. For example, a female scream at a certain pitch in variably raises goose bumps on those who hear it.

...Fellow

continued from page 1

So You’re Finally Going To Be 21

Mike Muellerleile!

Finally we can go have some fun -- HURRY UP!
- The Penguin Woman

Beep Beep Beep Beep Beep Beep Beep

Senior Bar — St. Patties Night
Thurs. March 12

Green Beer — Jameson Specials — Live Music
Jim Daly and Friends in the Pub.
Reagan at commencement

Oh boy, oh boy, they've done it this time. I'm really mad. Really mad. So mad that if I was grad student at Notre Dame, I'd be graduating this time. I wouldn't be really mad. So mad that if I was easy. The psychology of groups is a toss-up. Even though it will make Notre Dame that much more prestigious in the games, American. though it will make Notre Dame students and university parents will think that this event being dedicated to "Christian conscience," Notre Dame's Catholic mission for exchange in the world. It is encouraged. another classic chapter in the history of Notre Dame and speak to the seniors as a Pick Hesburgh and speak to the seniors as they take pride in the most SENTIMENTS OF DR. KNUTE ROCKNE: ALL-AMERICAN

...Notre Dame is a forum for exchange in the world, community and we honor all our feelings. It is unimportant. I am disappointed for several reasons. First, there is the history of the program. I have not been on campus in a year and a half, so I have to rely on the students to help me understand the program. Unfortunately, TV strident, governor of California, and current president of the United States. Yes, Reagan is president and it is really neat and wonderful to have the president speak here, but I cannot bury the past of Reagan so quickly or easily. The man who will speak is the same man who operates the government, endorses capital punishment, shows a blatant disregard for the problems of groups of persons, diverse or minority groups. It is a man who is a Catholic in the name of "Christian conscience." Notre Dame is Catholic mission in the world. He is the same man who opposes gun-control, endorses capital punishment, shows a blatant disregard for the problems of groups of persons, diverse or minority groups. It is a man who is a Catholic in the name of "Christian conscience." Notre Dame is Catholic mission in the world. He is the same man who opposes gun-control, endorses capital punishment, shows a blatant disregard for the problems of groups of persons, diverse or minority groups. It is a man who is a Catholic in the name of "Christian conscience." Notre Dame is Catholic mission in the world. He is the same man who opposes gun-control, endorses capital punishment, shows a blatant disregard for the problems of groups of persons, diverse or minority groups. It is a man who is a Catholic in the name of "Christian conscience." Notre Dame is Catholic mission in the world. 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Today is not too late to start being what you had always wanted to be.

T.S. Eliot
Men's basketball

Off-Campus victorious

By DONNA WITZLEBEN
Sports Writer

A blocked shot by Off Campus' John Buzaid gave Off Campus a 49-48 win last night over Howard to force a one game playoff tonight. Howard, population 165, going for its third consecutive Interhall Basketball title, opened up a nine point lead in the first quarter. But Off Campus fought back and scored nine unanswered points to tie the game. It was fairly close the rest of the half with Howard always in the lead. The score at the half was 27-24 in Howard's favor. Off Campus opened the second half by switching from man-to-man to a 2-5 zone. And with 5:30 remaining in the third period Off Campus took their first lead, 34-33. Howard then outsized Off Campus to take a 39-36 lead going into the fourth quarter.

Baskets were exchanged, including an 18-foot jumper by Howard's John "Philby" Leonard. Then with Off Campus leading by two, Howard's Sophomore Bob Keenehan, "Mr. Bookstore" of 1980, drove and scored to tie the game, but was charged with an offensive foul. Off Campus hit one free throw and was fouled on the rebound. This time Off Campus' high scorer, John Carlos, cashed in on both free throws and gave Off Campus a 49-48 lead with 20 seconds left in the game. Howard's Leonard then sank a 20 foot jumper to end the scoring. Howard got the half back, but failed to score.

"We knew they were a fastbreak team," said Off Campus Joe Meyer. "They ran a lot so we had to slow it down. We played very aggressively in the second half. We'll try and do the same thing tomorrow." High scorer for the game and Howard was Bob Keenehan with 17 points. Carlos led Off Campus with 16 points. Tonight's deciding game will be at 7:00 in the Pit at the ACC.

Grace captured the division B Interhall Basketball championship with an easy 49-29 win over Keenan. The game was close at the half with Grace leading by six, 21-15. Then in the third quarter Grace's Greg Busell exploded with nine points to finish off Keenan. With an 18 point lead going into the fourth, Grace naced in its way to the championship. High scorer of the game was Grace's Rich Amberg with 15 points. High scorer for Keenan was Bob Battle with seven points.

Netters head west

By MICHAEL ORTMAN
Sports Writer

California, here we come!

The Irish men's tennis team is off to the sunny west coast for a 10 day workout/vacation during which Notre Dame, 5-2 on the year, will face a pair of top 20 schools and the alma mater of a former President among the opponents scheduled in as many days.

Notre Dame opens its California swing at Whittier College on Friday afternoon at 2 p.m. PST. Whittier's biggest claim to fame is its most prestigious alumnus, Richard M. Nixon. The next day, the Irish take on another pair of Division Ill opponents, Claremont College and Pomona College. Then on Sunday, Tom Fallon's Irish face Cal State L.A. before their Monday showdown with national power Southern Cal.

The Trojans were ranked fourth in the nation by the Intercollegiate Tennis Coaches Association poll before the season. These two schools met in Los Angeles two years ago, and the Trojans took a 6-0 decision.

After the Southern Cal match, things should let up slightly for the Irish as they are scheduled to play Loyola Marymount Tuesday, Cal State-Long Beach on Wednesday and Point Loma College on Friday, March 20.

Saturday (March 20) the Irish run into another top 20 contender, San Diego. The Trojans were seeded 18th in the pre-season listing by the ITCA.

The next day, the Irish close out their western swing at San Diego State.

"This will be an opportunity for us to work on a lot of different aspects of our team," says Fallon. "We have several different types of teams on the schedule — teams we should beat, teams that should beat us, and teams that may play too close to call."

Fallon will also be looking to solidify his team's troubled doubles situation which has produced a disappointing four team points out of a possible 15 over the last five matches.
Women's basketball

by MIKE MONK

B-P takes crown

B-P's Hall captured the women's interball championship this year, defeating Patina 1 to 1 in the final round. After the game, high scorers for B-P guard Jan Sabala led all scorers with 14 points. Many Neelon and Eileen Ratkevich were the high scorers for Patina with six points each.

From the opening tip-off B-P took control of the game. In their first possession, Schall drove down the court and scored on a lay-up, and the champs never relinquished the lead throughout the game.

Olympics

Ironically but not surprisingly, cloves and fever were once the last great athletes to compete. From the Irish varsity squad in different events across the country. Marchetti in 1977 and Fordham in 1980. Both put up an impressive display throughout the season, and were both rewarded with a trip to the National Championships for their respective teams this year.

Marchetti, whose only previous experience was in sports, was a classic battle in the conclusion of the classic Alumni-Dillon athletic rivalry, which is an annual event of the past 50 years by both teams.

The season didn’t end with a good cheer, however. Marchetti said, "We knew we had a job to do and we did it. And they did it well. The victors consistently forced B-P to taking the outside shot as a matter of consideration.

Frankly, I attempted a comeback of sorts in the fourth quarter. Taking a page from the B-P playbook, I executed an effective full-court press and outscored the defenders 2-1. But it proved too little, too late.

For the region at-large, the B-P vs. Patina matchup was the best game of the season. Their 7-4 record shows how evenly matched the two teams are and how much they enjoy each other's company.

Women’s basketball

BY MIKE MONK

B-P captures women’s interhall basketball cham-

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**Dillon captures title**

**By CHRIS NEEDLES**

**Sports Writer**

Avenging consecutive shutting losses to defending champion Alumni, Dillon scored two goals early in the first half and hung on to defeat their arch-rivals, 2-1, to capture the interhall hockey championship last night before a vocal throng at the ACC.

Big Red got on the board first almost four minutes into the game. 15-foot slapshot by right wing Garin Green after a giveaway in the Alumni zone. It was the first goal Dillon had scored against Alumni in over 100 minutes of action, dating back to the teams’ 1-1 tie during the regular season last year.

Once again, loose play in the Alumni defensive zone produced another Dillon goal, as Larry Drabot was able to walk in alone on the left side. Dog goalie Phil Fowler out of position, and put the puck in the open net to make it 2-0.

Alumni, champion of the South Quad this season, played lackadaisically throughout the opening 20 minutes, but was able to pull within 2-1 at halftime on a fluke goal by Charlie Kruse. The sophomore left wing shot deflected off a Dillon defender, off the wall of Red goalie Danny Marchiori, and into the goal.

Now with the momentum on their side, the Dogs took control of the second half, as they constantly forced the action in the Dillon zone. But Marchiori was unbreakable as he came up with numerous key saves, the best of which was an obvious point blank shot blocked by Alumni’s Charlie Pecora late in the contest.

The Dogs continued to apply pressure until late in the game, when a holding penalty to defender John Smith allowed a point blank shot by Alumni's Charlie Pecora late in the contest. The Dogs continued to apply pressure until late in the game, when a holding penalty to defense man, off the wall of Red goalie Danny Marchiori, and into the goal.

The victory enabled Big Red to gain revenge against their neighbor-